

United States Patent (19)  
Falconer

(11) Patent Number: Des. 412,195  
(45) Date of Patent: Jul. 20, 1999

(54) HAND BOARD  
(76) Inventor: Glen Falconer, 325 S. Washington  
#148, Kent, Wash. 98032  
(\*) Term: 14 Years  
(21) Appl. No.: 29/081,544  
(22) Filed: Jan. 5, 1998  
(51) LOC (6) Cl. D21/897; D21/806  
(52) U.S. Cl. D21/801-810;  
(58) Field of Search 441/54-57, 58, 59

3,742,539 7/1973 Ostrowski et al. 441/58  
4,233,925 11/1980 Proctor 440/101  
4,493,663 1/1985 Richmond 440/101  
4,509,744 4/1985 Bessley 272/116  
4,669,991 6/1987 Southworth 441/57  
4,913,418 4/1990 Schuster et al. 272/71  
5,147,233 9/1992 Hamish 441/58

Primary Examiner—Kay H. Chin

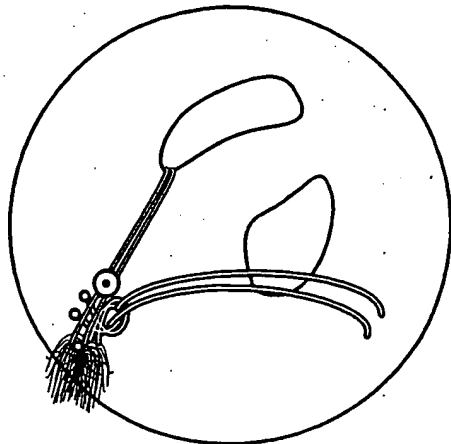
(57) CLAIM

I claim the ornamental design for a hand board, as shown and described.

DESCRIPTION

FIG. 1 is a side elevational view of my hand board showing an unassembled condition.  
FIG. 2 is a top plan view of FIG. 1.  
FIG. 3 is a top plan view of the safety jesses' with slider ball and a knot on the end.  
FIG. 4 is a top plan view of the wrist cord with a knot on each end.  
FIG. 5 is a top plan view of my hand board in an assembled condition with wrist cords and safety jesses'.  
FIG. 6 is a side elevational view of FIG. 5; and,  
FIG. 7 is a bottom plan view of FIG. 5.

1 Claim, 2 Drawing Sheets



Cool  
SkyBoard



United States Patent (19)  
Falconer

(11) Patent Number: Des. 412,352  
(45) Date of Patent: Jul. 27, 1999

(54) HAND BOARD  
(76) Inventor: Glen Falconer, 325 S. Washington  
#148, Kent, Wash. 98032  
(\*) Term: 14 Years  
(21) Appl. No.: 29/081,543  
(22) Filed: Jan. 5, 1998  
(51) LOC (6) Cl. D21/897; D21/806  
(52) U.S. Cl. D21/801-810;  
(58) Field of Search 441/54, 57, 58, 61-64

3,742,539 7/1973 Ostrowski et al. 441/58  
4,233,925 11/1980 Proctor 440/101  
4,493,663 1/1985 Richmond 440/101  
4,509,744 4/1985 Bessley 272/116  
4,669,991 6/1987 Southworth 441/57  
4,913,418 4/1990 Schuster et al. 272/71  
5,147,233 9/1992 Hamish 441/58

Primary Examiner—Kay H. Chin

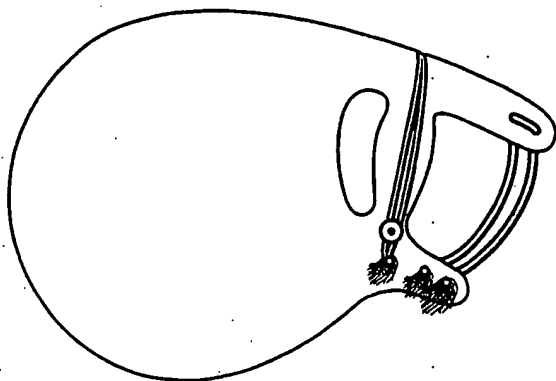
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FIG. 5 is a top plan view of my hand board in an assembled condition with wrist cords and safety jesses'.  
FIG. 6 is a side elevational view of FIG. 5; and,  
FIG. 7 is a bottom plan view of FIG. 5.

1 Claim, 2 Drawing Sheets



Coasting in the Shade

United States Patent (19)  
Falconer

(11) Patent Number: Des. 412,353  
(45) Date of Patent: Jul. 27, 1999

(54) HAND BOARD  
(76) Inventor: Glen Falconer, 325 S. Washington  
#148, Kent, Wash. 98032  
(\*) Term: 14 Years  
(21) Appl. No.: 29/081,545  
(22) Filed: Jan. 5, 1998  
(51) LOC (6) Cl. D21/897; D21/806  
(52) U.S. Cl. D21/801-810;  
(58) Field of Search 441/54, 57, 58, 61-64

3,742,539 7/1973 Ostrowski et al. 441/58  
4,233,925 11/1980 Proctor 440/101  
4,493,663 1/1985 Richmond 440/101  
4,509,744 4/1985 Bessley 272/116  
4,669,991 6/1987 Southworth 441/57  
4,913,418 4/1990 Schuster et al. 272/71  
5,147,233 9/1992 Hamish 441/58

Primary Examiner—Kay H. Chin

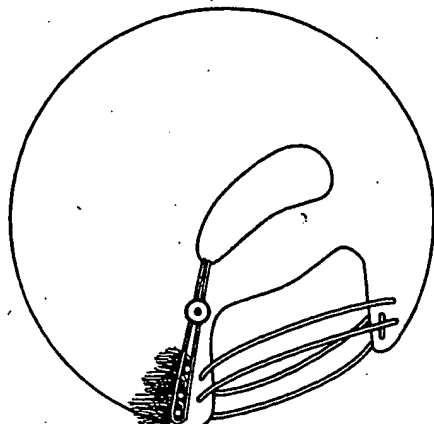
(57) CLAIM

I claim the ornamental design for a hand board, as shown and described.

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FIG. 2 is a top plan view of FIG. 1.  
FIG. 3 is a top plan view of the safety jesses' with slider ball and a knot on the end.  
FIG. 4 is a top plan view of the wrist cord with a knot on each end.  
FIG. 5 is a top plan view of my hand board in an assembled condition with wrist cords and safety jesses'.  
FIG. 6 is a side elevational view of FIG. 5; and,  
FIG. 7 is a bottom plan view of FIG. 5.

1 Claim, 2 Drawing Sheets



Sweet

BEST AVAILABLE COPY

[54] HANDTOOL  
[76] Inventor: Dan W. Harrison, Rm. 1, Box 570, Brownsboro, Tex. 75754  
[21] Appl. No.: 446,780  
[22] Filed: Dec. 3, 1982  
[51] Int. Cl.: B25G 1/00; B25G 1/06  
[52] U.S. Cl.: 7/145; 30/151  
[58] Field of Search: 7/145, 144, 143; 30/151, 153

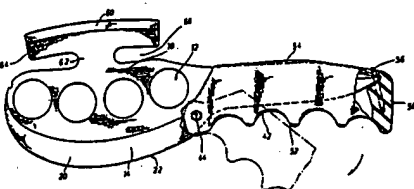
1,018,403 10/1933 Case et al.  
1,230,443 4/1942 Williamson  
1,559,489 7/1951 Truesdell  
1,713,340 10/1953 Schaefer  
1,820,291 1/1938 Phillips  
1,321,753 5/1967 Ives  
1,581,326 3/1949 Hayes

Primary Examiner—Roscoe V. Parker  
Attorney, Agent, or Firm—Arnold, White & Durkin

#### ABSTRACT

There is provided an improved hand tool having a body portion with an axe blade attached thereto. A knife blade extends from the body portion and a sheath is pivotally mounted on the body portion so as to be movable between first and second positions. The sheath is configured to cover the knife blade when the sheath is in the first position and to cover the axe blade when the sheath is in the second position.

20 Claims, 3 Drawing Figures



[54] HANDTOOL  
[76] Inventor: Arthur S. C. Magan, 15, Heynesbury Lane, Dublin 4, Ireland  
[\*\*] Term: 14 Years  
[21] Appl. No.: 461,466  
[22] Filed: Jan. 27, 1983  
[52] U.S. Cl.: D8/105; D4/32  
[58] Field of Search: D8/31, 52, 54-60; D4/23, 25, 14, 104, 105, 99; 7/118, 119, 129, 132, 142, 163, 164, 166, 167

1411836 10/1975 United Kingdom

#### OTHER PUBLICATIONS

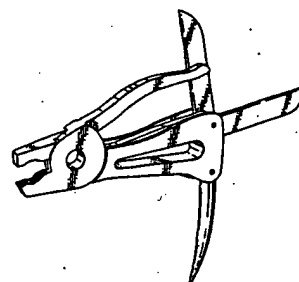
Radio Shack Corp. Mail Order Brochure, 1/21/1983, 3 Blade Gripper/Cutter, No. R-4275.  
Primary Examiner—Susan J. Lucas  
Assistant Examiner—C. E. Hefflin  
Attorney, Agent, or Firm—Young & Thompson

#### CLAIM

The ornamental design for a handtool, substantially as shown and described.

#### DESCRIPTION

FIG. 1 is a perspective view of the handtool showing my new design with the various components shown in the open position;  
FIG. 2 is a side view from the right hand side of the handtool showing my new design with the various components shown in the closed position;  
FIG. 3 is a side view from the left hand side thereof;  
FIG. 4 is a top view thereof;  
FIG. 5 is a bottom view thereof;  
FIG. 6 is a front view thereof;  
FIG. 7 is a rear view of the handtool of my new design.



[54] MULTI-FUNCTIONAL HAND TOOL  
[76] Inventor: Antonio Moreira, 17 Gail Rd., Merrimack, N.H. 03054

Primary Examiner—Daid Scherbel  
Assistant Examiner—Joel B. Diagonano  
Attorney, Agent, or Firm—Scott B. Garrison; Lambert & Garrison PLLC

#### ABSTRACT

A multi-functional hand tool is provided having a handle portion to be held by a user. The handle portion is made to receive a plurality of different types of tool attachments. To secure these tool attachments, a plurality of slots are machined into an attachment portion of the hand tool. The attachment portion is simply a rigid element which can receive, retain and rigidly secure one of the tool attachments within one of the slots. The slots are sized differently to accommodate various marketed tool attachments, such as jig saw blades, reciprocating saw blades, utility knives, et. al. Further, petty knives, and striking implements can be made having a suitable tang for engaging one of the slots. The device is meant to be used as an all purpose sawing, cutting, scraping, spreading and striking implement which would replace a great deal of expensive tools commonly needed by apartment dwellers, students, and "do-it-yourselfers".

[21] Appl. No.: 819,429  
[22] Filed: Mar. 17, 1997  
[51] Int. Cl.: B25G 1/00  
[52] U.S. Cl.: 7/167; 81/489; 81/124.4  
[58] Field of Search: 7/167, 158, 170; 81/489, 487, 329, 337, 339, 342, 124.4; 30/244

#### References Cited

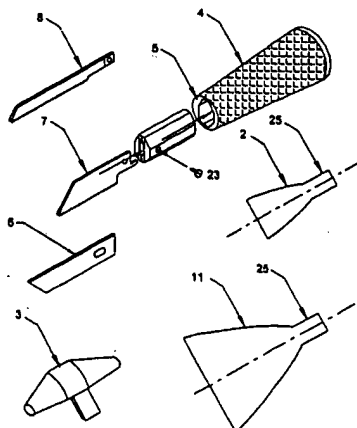
##### U.S. PATENT DOCUMENTS

202,105 4/1878 Gladwin  
1,097,043 5/1934 Holder  
1,980,087 11/1934 Rost  
2,737,704 3/1956 Casco  
4,042,118 12/1977 Medallini  
4,512,381 4/1985 Alvarez  
4,700,420 10/1987 Delaney  
5,058,465 10/1991 Wenzel  
5,615,746 4/1997 Cho

##### FOREIGN PATENT DOCUMENTS

72029 11/1893 Germany 81/124.4

5 Claims, 5 Drawing Sheets



[54] TROWEL AND SCREWDRIVER COMBINATION HANDTOOL

[76] Inventor: Wayne Anderson, 65 Grove St., Paolo Cassini, 8 N. Creek Rd., both of Northport, N.Y. 11758

5,251,352 10/1993 Collins  
5,515,249 3/1996 Shiao  
5,711,194 1/1998 Anderson et al.  
5,720,053 2/1998 Chene  
5,870,786 2/1999 Papadopoulos  
5,927,164 7/1999 Anderson et al.  
5,956,788 9/1999 Heals

[21] Appl. No.: 09/436,894  
[22] Filed: Nov. 9, 1999

#### Related U.S. Application Data

[63] Continuation of application No. 09/134,684, Aug. 14, 1998, and a continuation-in-part of application No. 09/237,784, Jan. 26, 1999, which is a continuation of application No. 08/777,027, Nov. 24, 1997, Pat. No. 5,727,164, which is a continuation of application No. 08/451,398, May 26, 1995, Pat. No. 5,711,194.

[51] Int. Cl.: B44C 7/00  
[52] U.S. Cl.: 7/105; 7/167; 7/118; 7/128  
[58] Field of Search: 7/105, 118, 128, 7/165, 167

#### References Cited

##### U.S. PATENT DOCUMENTS

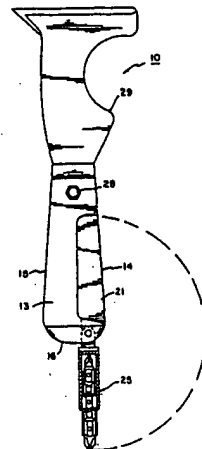
4,512,693 4/1985 Swenson  
5,053,627 11/1991 Moore

Primary Examiner—David A. Scherbel  
Assistant Examiner—Lee Wilson  
Attorney, Agent, or Firm—Lackzabach Siegel Marmore Avonson & Georagan, P.C.

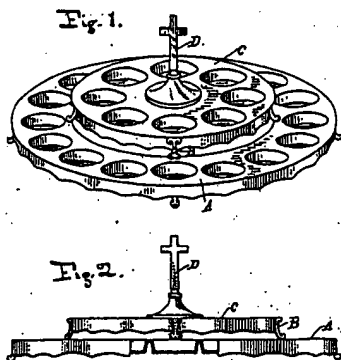
#### ABSTRACT

A combination trowel and screwdriver is provided wherein the trowel handle houses and removably retains a tool bit drive assembly which houses a plurality of tool bit or screw drivers. The user pivots the tool bit drive assembly housing away from the handle to a position extending in the proximate direction from the handle. The user then inserts the desired tool bit drive for insertion at the proximate end of the handle screws the screw into a recessed position in a wallboard construction. The user then retracts or pivots the tool bit drive assembly into the handle, and uses with the trowel and putty or spreads a wallboard plastic or finishing material over the recessed screw head to finish the wall.

15 Claims, 3 Drawing Sheets



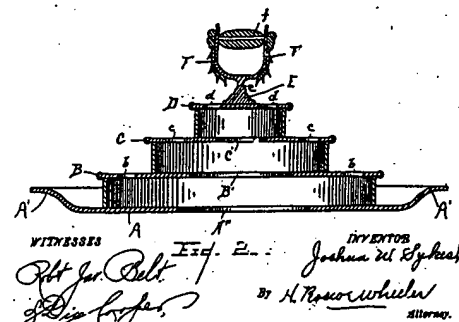
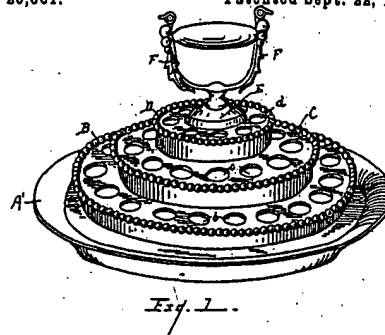
DESIGN.  
E. J. HOWE.  
COMMUNION SERVICE TRAY.  
No. 23,901. Patented Dec. 26, 1894.



Witnesses:  
Edw. J. Howe  
G. A. Cunningham

Inventor  
Edwin J. Howe,  
by L. S. Mason  
Att'y.

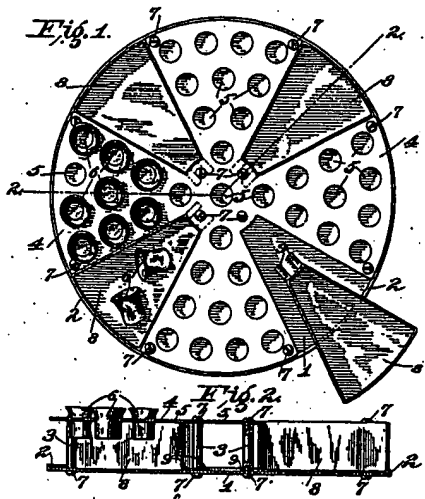
DESIGN.  
J. W. SYKES.  
COMMUNION SERVICE TRAY.  
No. 26,061. Patented Sept. 22, 1896.



Witnesses:  
Edw. J. Howe  
G. A. Cunningham

Inventor  
Joshua W. Sykes,  
by H. Mason  
Att'y.

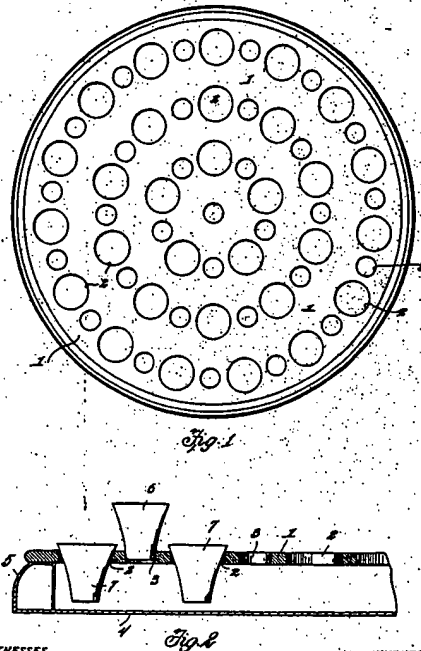
W. D. OREE & H. F. DAVIS.  
COMMUNION SERVICE.  
APPLICATION FILED OCT. 1, 1910. Patented Jan. 24, 1911.



Witnesses:  
Edw. J. Howe  
G. A. Cunningham

Inventors  
W. D. Oree & H. F. Davis,  
by C. A. Mason  
Att'ys.

A. C. HUSTED.  
COMMUNION TRAY.  
APPLICATION FILED APR. 5, 1915. Patented Oct. 3, 1916.



Witnesses:  
Edw. J. Howe  
G. A. Cunningham

Inventor  
Alfred C. Husted,  
by C. A. Mason  
Att'y.

## [54] TABLE TENNIS PADDLE

[75] Inventor: John J. Brown, 419 E. Chapman St.,  
St. Louis, Mo. 63101

[77] Term: 14 Years

[21] Appl. No.: 838,119

[22] Filed: Sep. 25, 1977

[31] Int. Cl. \_\_\_\_\_ D21-01  
[32] U.S. Cl. \_\_\_\_\_ D21/213  
[34] Field of Search \_\_\_\_\_ D24/1 SP, 15 F, 273/74,  
273/97 B, 67 B

## [56] References Cited

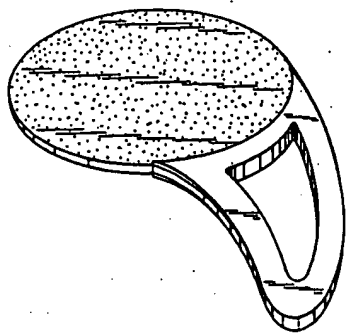
## FOREIGN PATENT DOCUMENTS

210234 1/1972 Fed. Rep. of Germany — 273/67 B  
2371 of 1961 United Kingdom — 273/76Primary Examiner—Melvin B. Feller  
Attorney, Agent or Firm—Norman F. Friederichs

## [57] CLAIM

The ornamental design for a table tennis paddle, as  
shown and described.

## DESCRIPTION

FIG. 1 is a perspective view of a table tennis paddle  
showing my new design.  
FIG. 2 is a side view; and  
FIG. 3 is a top view the bottom view being a mirror  
image of the top.

## United States Patent [19]

McPoye

[11] Patent Number: 5,139,258  
[45] Date of Patent: Aug. 18, 1992

## [54] PADDLE BALL RACQUET

[75] Inventor: Stephen F. McPoye, Lake Worth,  
Fla.[77] Assignee: Party Pong Inc., West Palm Beach,  
Fla.

[21] Appl. No.: 830,379

[22] Filed: Jan. 31, 1992

[31] Int. Cl. \_\_\_\_\_ A63B 89/04  
[32] U.S. Cl. \_\_\_\_\_ 273/76 273/73 J;  
273/30  
[34] Field of Search \_\_\_\_\_ 273/73 R, 73 G, 73 J,  
273/76, 29 R, 29 A, 30[56] References Cited  
U.S. PATENT DOCUMENTS1,894,154 1/1933 Marks — 273/76  
4,022,060 10/1977 Balkcom — 273/73 G X  
4,333,330 10/1980 Kronach — 273/76 X  
4,367,871 1/1982 Schuler — 273/73 J X  
4,744,119 5/1988 Jensen — 273/73 J X  
4,913,382 4/1990 Madson — 273/73 J X

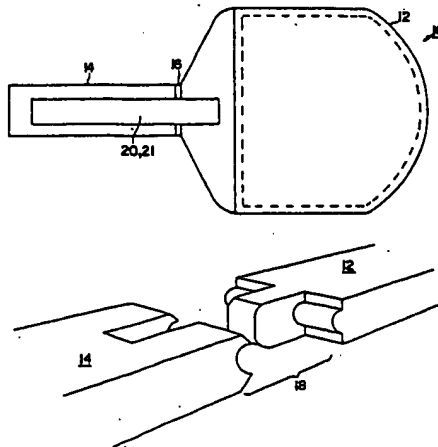
## FOREIGN PATENT DOCUMENTS

0334386 5/1922 Fed. Rep. of Germany — 273/73 G  
2590802 6/1987 France — 273/73 J  
0431994 1/1933 United Kingdom — 273/73 GPrimary Examiner—William H. Grish  
Assistant Examiner—William E. Smith  
Attorney, Agent or Firm—John H. Fero

## [57] ABSTRACT

A paddle ball racquet for a slow paced table tennis  
game is herein disclosed. The racquet is modified to  
eliminate the advantages of the power player by impart-  
ing flex or articulation between the racquet handle and  
the paddle surface. The design parameters of the rac-  
quet prevents accurate returns of the game ball if the  
racquet speed exceeds certain empirically determined  
limits. Accordingly, the racquet handicaps the power  
player and thereby emphasizes accuracy in shot place-  
ment. The racquet of this invention can be used in con-  
ventional table tennis or, in conjunction with a unique  
table tennis layout designed for accurate shot place-  
ment.

4 Claims, 4 Drawing Sheets



## United States Patent [19]

Tea

[11] 4,324,400

[45] Apr. 13, 1982

## [54] TABLE TENNIS BAT BLADE

[75] Inventor: Jackson Tea, Bellevue, Wash.

[77] Assignee: EST Industries, Inc., Wash.

[21] Appl. No.: 64,333

[22] Filed: Aug. 4, 1979

[31] Int. Cl. \_\_\_\_\_ A63B 59/04  
[32] U.S. Cl. \_\_\_\_\_ 273/76 273/DIG. 7;  
273/DIG. 23  
[34] Field of Search \_\_\_\_\_ 273/73 F, 74, DIG. 7,  
273/23, 67 B, 67 A, 67 D

## [56] References Cited

## U.S. PATENT DOCUMENTS

3,201,134 4/1965 Brown — 273/73 F X  
3,633,481 1/1972 Bartlett et al. — 273/73 F X  
3,691,000 9/1972 Katsis — 273/73 F X  
3,734,128 9/1973 Zemlin et al. — 273/73 F X  
3,737,051 1/1974 Johns — 273/73 F X  
3,716,773 4/1974 Hoshikawa et al. — 273/73 F X  
3,902,732 9/1973 Poshu et al. — 273/73 F X  
3,997,141 12/1976 Lemke — 273/76  
4,053,799 5/1977 Van Aken — 273/73 F  
4,070,020 1/1978 Dene — 273/73 F

## FOREIGN PATENT DOCUMENTS

2414284 10/1976 Fed. Rep. of Germany — 273/76  
2432820 3/1977 Fed. Rep. of Germany — 273/76  
198816 9/1951 France — 273/76  
776045 6/1957 United Kingdom — 273/67 D  
1484436 5/1976 United Kingdom — 273/76

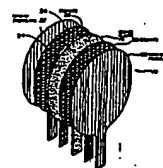
## OTHER PUBLICATIONS

"Research Disclosure", Disclosure No. 11644, Dec.  
1973.Primary Examiner—Richard J. Apple  
Attorney, Agent or Firm—Graybeal & Uhler

## [57] ABSTRACT

The blade for a table tennis bat includes a layer of light-  
weight, low modulus of elasticity material positioned  
centrally with respect to the thickness of the blade and  
overlaid by a constraining layer of high modulus of  
elasticity material. The blade also includes a smooth,  
rigid outer layer bonded to the outer surfaces of the two  
constraining layers. The constraining layers are com-  
posed of strands of stretch resistant material woven  
transversely to each other to form a mat.

8 Claims, 3 Drawing Figures



## [12] United States Patent

Mizeracki et al.

[10] Patent No.: US 6,234,919 B1  
[45] Date of Patent: May 22, 2001[54] TABLE TENNIS HANDLE-LESS RACQUET  
AND MULTIPURPOSE COMBINATION  
TABLE[75] Inventor: Martin Tom Mizeracki, 39 Bunker  
Hill Ln., Russellville, AR (US) 72802;  
Martha Robert Mizeracki, 3301  
Meadow Wood Ln., Bedford, TX (US)  
76021(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

[21] Appl. No.: 09/402,253

[22] Filed: Sep. 23, 1999

[31] Int. Cl. \_\_\_\_\_ A63B 47/04  
[32] U.S. Cl. \_\_\_\_\_ 473/494; 473/435; 473/470;  
108/170[34] Field of Search \_\_\_\_\_ 273/309; 473/496,  
473/491, FOR 113, 4, 10, 14, 15; 108/93-95,  
62-63, 94; 254/100

## [56] References Cited

## U.S. PATENT DOCUMENTS

512,337 \* 1/1894 Steadon — 473/10

2,911,217 \* 11/1959 Hinch et al. — 473/435  
3,518,269 \* 5/1967 Elm — 108/170  
4,302,766 \* 11/1981 Rayson — 273/108.1  
4,583,497 \* 4/1986 Thayer — 108/19  
5,074,356 \* 12/1991 Longley et al. — 273/108.5  
5,372,364 \* 12/1994 Arroyo — 273/108.5  
5,451,046 \* 9/1995 Dene — 473/470  
5,704,683 \* 1/1998 Cooper et al. — 273/134

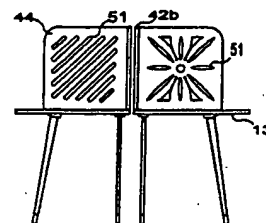
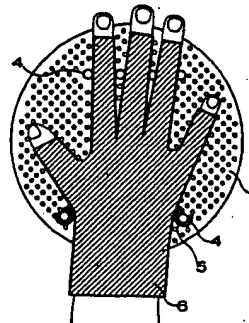
\* cited by examiner

Primary Examiner—Joanette Chapman  
Assistant Examiner—Mitra Artyanpour

## [57] ABSTRACT

A table tennis handle-less paddle or racquet, and a multi-  
purpose sport & entertainment game-study convertible table  
are disclosed. A racquet is characterized by combination of  
two separate impact surfaces, between which a player's hand  
is inserted. The racquet and games are specifically  
designed as an integrated package, to develop motor skills  
for the youngest players, and to facilitate learning table  
tennis, starting from age five to six. A concept of novel  
hardware is also applicable to older children and adults as  
well. A multipurpose convertible table is constructed to  
serve as a game apparatus (table tennis or surface propelled  
pack game), or as a student study-work fixture.

4 Claims, 3 Drawing Sheets



## [54] APPARENT WIND INDICATION DEVICE

[76] Inventor: Michael L. Perrella, 4894 Fayetteville Manito Rd., Manito, N.Y. 13104

[21] Appl. No. 774,828

[22] Filed: Mar. 4, 1977

[51] Int. Cl. G01W 1/00

[52] U.S. Cl. 73/188; 116/114 R; 116/114 C

[53] Field of Search 114/114 C; 73/188; 116/114 R

## [56] References Cited

## U.S. PATENT DOCUMENTS

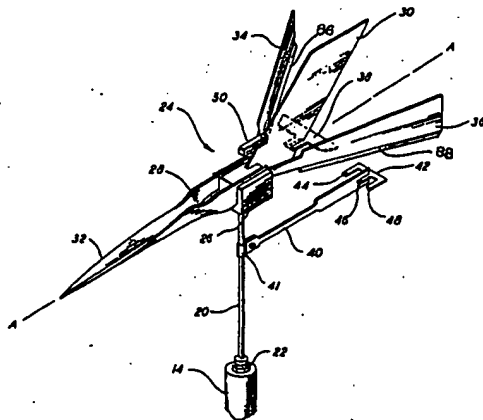
3,371,329 3/1968 Tulman 73/188  
3,945,774 11/1974 Deane 73/188

Primary Examiner—George E. A. Halverson  
Assistant Examiner—James D. Sotelo  
Attorney, Agent, or Firm—Charles S. Mc Guire

## [57] ABSTRACT

A device for mounting on a sailboat to provide a visual indication of the optimum boat-to-wind angle to achieve maximum distance per unit of time to windward. A pivotally mounted wind vane includes a pair of flexible struts extending outwardly at equal angles on each side of the vane centerline and are deflected from a normal, unflexed position laterally in proportion to apparent wind velocity. A flexible elongated member is affixed at one end to the support upon which the vane is pivotally mounted and is likewise flexed in accordance with apparent wind direction and velocity. Steering the boat to bring the flexible member into predetermined positional relationship to one of the flexible struts provides the desired optimization, for upwind travel, of boat-to-wind angle. The device is also useful in downwind sailing by aligning one of the struts on the windward with either the transverse or longitudinal axis of the boat, depending on apparent wind velocity.

10 Claims, 8 Drawing Figures



## [54] WINDVANE

[76] Inventor: Samuel Birnbaum, 11 Shadow Grove Ln., Holbrook, N.Y. 11741

[21] Appl. No. 224,460

[22] Filed: Jan. 13, 1981

[51] Int. Cl. G01P 13/02

[52] U.S. Cl. 73/188; 116/128 R; 116/263

[53] Field of Search 73/188, 189; 116/263 R, 116/264, 200, D10, 7, 263; 350/96.19, 96.10

## [56] References Cited

## U.S. PATENT DOCUMENTS

3,318,443 8/1964 Orr 116/263  
3,783,344 2/1977 Tuhle 350/96.1  
3,394,715 11/1967 Casey 73/188  
3,371,329 3/1968 Tulman 73/188

4,066,121 1/1978 Bringham 350/96.19

4,300,470 11/1981 Perrella 116/263

## FOREIGN PATENT DOCUMENTS

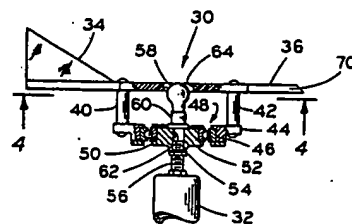
201161 9/1978 United Kingdom 116/263

Primary Examiner—Charles Frankfort  
Assistant Examiner—Dennis E. Carr  
Attorney, Agent, or Firm—Bauer & Amer

## [57] ABSTRACT

A plectiglass or similar plastic windvane that has beveled peripheral edges or is otherwise provided with surface markings from which light rays impinging thereon exit from the plectiglass causing illumination of the edges or markings, whereby the windvane is effectively used at night or under conditions of diminished visibility to designate wind direction.

2 Claims, 5 Drawing Figures



## [54] BIRD REPELLING MEANS

[76] Inventor: David A. Nuttie, Rm. 2, Youngsville, N.C. 27596

[21] Appl. No. 792,989

[22] Filed: Oct. 23, 1985

[51] Int. Cl. A01M 29/04

[52] U.S. Cl. 43/2; 446/178

[53] Field of Search 43/2, 1; 116/22 A, 23, 116/24, 140, 141; 446/176, 178; 213, 216, 40/440, 433

[56] References Cited

## U.S. PATENT DOCUMENTS

333,611 1/1884 Davaggio 446/213 X  
1,187,202 1/1936 Hoffmann et al. 40/433  
1,442,280 1/1923 Pulliam 40/433  
2,788,762 4/1957 Wright 116/22 A  
2,941,197 6/1960 Marston 116/22 A  
4,112,394 12/1978 Lewis et al. 116/22 A  
4,112,079 12/1978 Rousseau, Jr. et al. 116/22 A

## FOREIGN PATENT DOCUMENTS

2338294 1/1975 Fed. Rep. of Germany 43/2  
197628 9/1978 United Kingdom 116/22 A  
204144 6/1980 United Kingdom 43/2

Primary Examiner—Nicholas P. Goodell

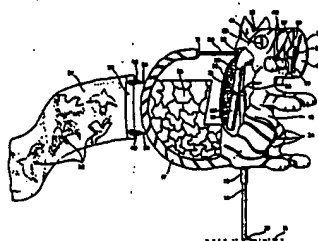
Assistant Examiner—Cynthia Cade

Attorney, Agent, or Firm—MG & Coats

## [57] ABSTRACT

This invention is a combination of visual and aural devices to create panic in selected bird species. This is accomplished in part through a body simulating a Tiger Cat which is weather-vane mounted. The body includes bright orange stripes and has predatory eyes. Streamers depicting panicked birds are attached to the tiger's tail and an internal wind driven flute produces a variety of the notes. Additionally, reflectors are used on a propeller to simulate light reflection from a gas barrel. Further, random or scheduled explosions from an automatic scotchyone exploder and bird warning and distress calls are broadcast over loud speakers for the species of birds being repelled.

24 Claims, 4 Drawing Figures



## [54] WEATHERVANE SUPPORT

## [57] CLAIM

[76] Inventor: Walter James Frontz, II, 2152 Lackey Old State Rd., Delaware, Ohio 43015

[21] Filed: Nov. 13, 1996

[51] LOC (6) Cl. 19-04

[52] U.S. Cl. D1059

[53] Field of Search D1059; 73/170.05, 73/170.06, 170.07

[56] References Cited

## U.S. PATENT DOCUMENTS

D. 272,085 8/1984 Mauw D1059

Primary Examiner—Antonia Duval Davis

Attorney, Agent, or Firm—Stanley & Gierck

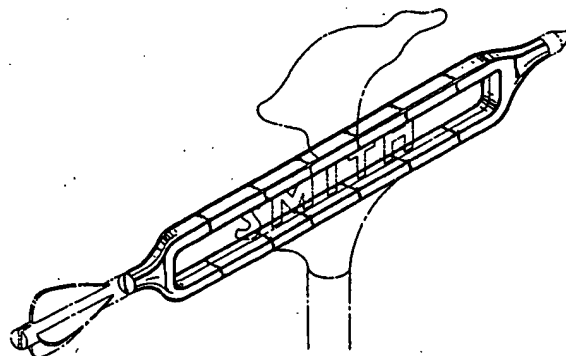
## [57] CLAIM

The ornamental design for a weathervane support, as shown and described.

## DESCRIPTION

FIG. 1 is a perspective view of the weathervane support of the present invention;  
FIG. 2 is a side view of the weathervane support of FIG. 1;  
FIG. 3 is a top plan view of the weathervane support of FIG. 1;  
FIG. 4 is a bottom view of the weathervane support of FIG. 1;  
FIG. 5 is a front end view of the weathervane support of FIG. 1;  
FIG. 6 is a back end view of the weathervane support of FIG. 1.  
The broken line showing is for illustrative purposes only and forms no part of the claimed design.

1 Claim, 2 Drawing Sheets



# United States Patent

(11) 4,378,670  
(45) Apr. 5, 1983

[54] HAND SCOOP FOR GRASS AND LEAVES  
[76] Inventors: Matthias M. Check, 34 Bowman Dr.,  
Greenwich, Conn. 06830; Ellis L.  
Goodby, 22 Barrow Dr., East  
Greenwich, R.I. 02818

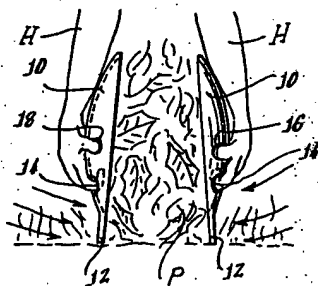
2,180,544 11/1979 Nims 36/400.01  
2,544,112 7/1981 Spring 294/1.2  
2,543,323 1/1981 Druber 294/23  
2,444,433 1/1981 Bosch 294/20.9  
2,433,379 9/1983 Morris 294/20.9  
2,360,338 11/1980 Fischer 294/49  
3,100,419 10/1983 Erwing 294/23  
3,800,421 5/1974 James 36/400.12

Primary Examiner—Paul J. Hirsch  
Attorney, Agent, or Firm—Alfred E. Miller

## ABSTRACT

A pair of concave scoops that are operated by a person's hands which have teeth that function as rakes to assemble leaves, grass clippings, and other debris into a pile that can be lifted for disposal into garbage bags, wheelbarrows, or the like. The scoops are lightweight, and easily gripped and maneuvered into position to lift up and dispose of any unwanted debris from lawns and other locations.

9 Claims, 7 Drawing Figures



[21] Appl. No.: 182,315  
[22] Filed: Aug. 28, 1980

[31] Int. Cl. 1: A01D 7/00  
[32] U.S. Cl. 1: 36/400.01; 36/400.12;  
294/20.9; 294/23

[36] Field of Search: 294/49, 51, 50.5, 50.6,  
294/20.8, 50.9, 52, 36/400.01; 400.12

## References Cited

U.S. PATENT DOCUMENTS  
273,303 4/1883 Lindsay 294/20.9  
364,313 6/1887 Smith 294/23  
816,236 2/1904 Kline 294/20.9  
1,773,371 9/1930 Rosen 294/20.9  
2,023,680 1/1938 Mayeda et al. 294/20.9

# United States Patent

(11) Patent Number: 5,359,840  
(45) Date of Patent: Nov. 1, 1994

[54] COMBINATION HANDBRAKE, SCOOP,  
GRASPING TOOL AND METHOD OF USE

[76] Inventor: Donald G. Castor, P.O. Box 9905,  
Reno, Nev. 89507-0905

[21] Appl. No.: 177,868

[22] Filed: Jan. 4, 1994

[31] Int. Cl. 1: A01D 7/02

[32] U.S. Cl. 1: 36/400.12; 172/378;  
294/23

[36] Field of Search: 36/330, 400.01, 400.12,  
36/400.14, 172/371, 378, 294/23

## References Cited

U.S. PATENT DOCUMENTS  
345,844 7/1886 Holmes 294/23 X  
367,087 9/1886 Fitzgerald 294/11  
966,740 5/1910 Cox 431/320  
2,344,072 6/1941 Lindbergh 294/23  
2,533,678 10/1950 Ross 294/20.9  
2,958,181 10/1959 Ross 36/400.04  
3,133,311 6/1964 Stone 172/371  
3,684,484 9/1972 Cox 36/400.12

## FOREIGN PATENT DOCUMENTS

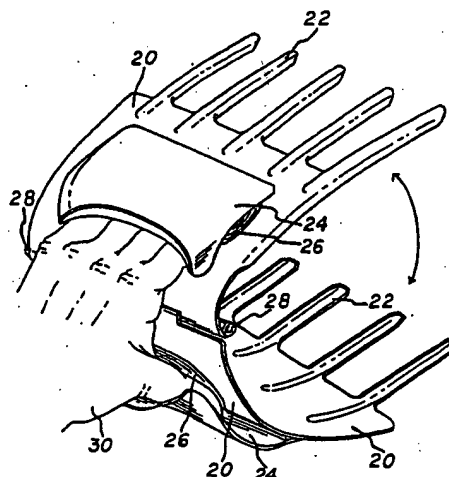
1,841,684 10/1974 Fishelson 294/1.2  
4,018,035 4/1977 Sze 36/400.12  
4,037,397 7/1977 Fernandez 36/400.12  
4,143,510 4/1979 Bosch 294/1.2  
4,378,570 6/1983 Check et al. 36/400.01  
4,378,671 6/1983 Osasco 36/400.12  
4,747,633 5/1988 Stacy 294/23 X  
4,991,386 2/1991 Dickson 36/400.12  
5,031,370 10/1991 Russell 36/400.12  
5,114,199 5/1992 Newcomer 294/20.9  
5,168,191 12/1992 Boes 294/23

Primary Examiner—David J. Baggett

## ABSTRACT

A one hand operable grasping tool having extended and retracted, or raking members, that transform the tool into a small one hand operable rake when in a closed position.

2 Claims, 4 Drawing Sheets



# United States Patent

(11) Patent Number: 5,937,627  
(45) Date of Patent: Aug. 17, 1999

McKittrick

[54] GARDENING IMPLEMENT HAVING  
ENHANCED LEVERAGE

[75] Inventor: Jamie McKittrick, 4901 Froumense  
Ave., Golden Valley, Minn. 55422

[73] Assignee: Jamie McKittrick, Golden Valley,  
Minn.

[21] Appl. No.: 08/693,345

[22] Filed: Aug. 6, 1996

## Related U.S. Application Data

[63] Continuation-in-part of application No. 08/414,158, Mar. 6,  
1996, Pat. No. 5,813,206.

[31] Int. Cl. 1: A01D 7/00

[32] U.S. Cl. 1: 36/400.01; 36/400.04;  
172/378; 294/53

[36] Field of Search: 36/400.01, 400.04,  
36/400.05, 400.17; 172/378; 294/53

## References Cited

U.S. PATENT DOCUMENTS  
309,437 12/1884 Cole 294/58 X  
712,843 11/1902 Peol 294/58 X  
2,180,544 11/1939 Rosen 36/400.01 X  
2,710,571 6/1955 Pitzer 294/53  
3,222,355 2/1966 Woolworth 294/58 X  
4,477,114 10/1984 Collis 294/58 X

4,444,740 2/1987 Lee 294/58  
4,822,087 4/1989 DeCade 294/58  
4,889,866 12/1989 Hanks 294/58  
5,014,792 5/1991 Gledhill 294/58  
5,177,541 1/1993 They et al. 294/58

## FOREIGN PATENT DOCUMENTS

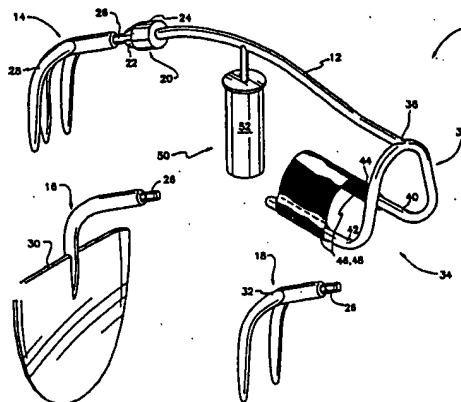
2183,433 6/1987 United Kingdom 294/58  
2348,034 3/1992 United Kingdom 294/58

Primary Examiner—Heather Shackelford  
Attorney, Agent, or Firm—Dorsey & Whitney LLP

## ABSTRACT

A hand held garden tool configured to enhance downward force for digging and raking. The tool has a rod frame which extends from a working element attached to the tool at the front end of the tool to a brace located at the rear of the tool. The brace rests on the user's wrist or forearm, so that additional force is developed when the working element is urged downwardly into the ground. A handle depends from the frame at a point between the working element and the brace. Vertical orientation of the handle is more natural and comfortable than would be a horizontal orientation. The handle is provided with a molded grip for cooperating with a user's hand. The tool has a clench for accepting diverse working heads, and preferably is provided with a plurality of diverse working heads. Exemplary working heads include rakes, spades, and pry.

5 Claims, 3 Drawing Sheets



# United States Patent

(11) Patent Number: 5,609,012  
(45) Date of Patent: Mar. 11, 1997

Anthes et al.

[54] RAKING APPARATUS WORN ON A HAND

4,866,522 9/1989 Clark 36/400.04  
5,404,644 4/1995 Neuduen et al. 172/378 X

[76] Inventors: Peter S. Anthes; Jennine Anthes, both  
of 8 Gen. Ct., Westerly, R.I. 02891

Primary Examiner—Terry Lee Melton

[21] Appl. No.: 839,081

[22] Filed: Sep. 15, 1995

[31] Int. Cl. 1: A01D 7/06

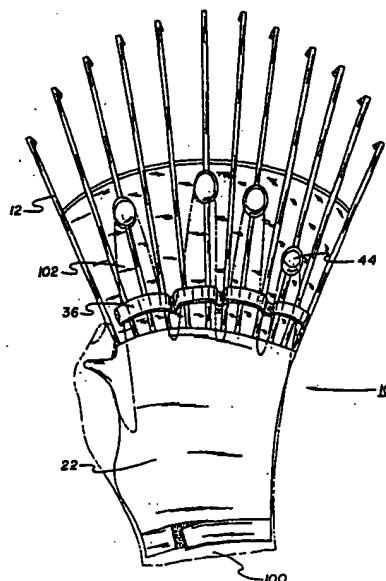
[32] U.S. Cl. 1: 36/400.01; 36/400.12;  
172/378

[36] Field of Search: 36/400.01, 400.04,  
36/400.19, 400.12, 400.21; 172/378; 294/23

## References Cited

U.S. PATENT DOCUMENTS  
4,378,670 4/1983 Check et al. 36/400.01

5 Claims, 3 Drawing Sheets





**United States Patent** (19)

Schluter et al.

(11) Patent Number: 4,913,418  
(45) Date of Patent: Apr. 3, 1990

**[54] SWIM AND EXERCISE PADDLE IMPROVEMENT**

(75) Inventors: Nancy A. Schluter, Phoenix; Ronald L. Johnson, Scottsdale, both of Ariz.  
(72) Assignee: Speedship, Inc., Phoenix, Ariz.  
(21) Appl. No.: 778,347  
(22) Filed: Nov. 23, 1988  
(51) Int. Cl.: A63B 21/00; A63B 21/02  
(52) U.S. Cl.: 272/71; 272/116; 272/118; 41/58; 59, 60, 61, 62, 63, 64; D12/236; 227, 238; 434/254  
(58) Field of Search: 272/71, 130, 52, 131; 272/116, 41/58, 59, 60, 61, 62, 63, 64; D12/236, 227, 238; 434/254

**References Cited**  
**U.S. PATENT DOCUMENTS**  
1,328,644 10/1973 Brewer et al. 272/71 B  
2,765,119 5/1956 Whipple 441/58  
3,397,414 8/1968 Wale 441/58  
3,765,063 10/1973 Monetti 441/58  
4,311,011 6/1980 Sweeney 272/116  
4,674,110 6/1987 Eason et al. 132/77

**FOREIGN PATENT DOCUMENTS**

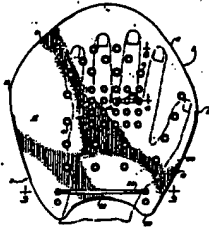
940771 6/1977 Canada 272/403  
Primary Examiner—Stephen R. Crow  
Attorney, Agent, or Firm—Charles E. Cain

**[57] ABSTRACT**

A swimmer's flexible plastic hand paddle has a surface area larger than a swimmer's hand, and a plurality of perforations (superimposed on the user's hand area) which are positioned to an off-set location on the paddle toward the thumb side of the user's hand. The edge of the paddle closely approaches the outer edge of the user's hand on the thumb side when the hand is in position on the paddle, whereas on the little finger side of the paddle there is a substantially larger (compared to the thumb side of the paddle) area (preferably superimposed) that makes a water feel. The corners of the paddle are rounded and means for attaching the user's hand to the paddle and positioned in a desired position over the perforations are provided. The thickness is a plastic material having a modulus of elasticity of about 150,000 p.s.i. is from 2 to 4 mm., preferably 3 mm.

15 Claims, 1 Drawing Sheet

Not Round, Not Rigid.  
No cut out grip.



Not stable at 120 mph.  
Not stable in white water.  
Silly holes reduce efficiency.

**United States Patent** (19)

Johnson

(11) Patent Number: 5,511,988  
(45) Date of Patent: Apr. 30, 1996

**[54] SWIMMER TRAINING PADDLE**

(76) Inventor: Ronald L. Johnson, 2338 N. 65th St., Scottsdale, Ariz. 85251  
(21) Appl. No.: 502,630  
(22) Filed: Jul. 14, 1993  
(51) Int. Cl.: A63B 31/10  
(52) U.S. Cl.: 441/254; 441/58  
(58) Field of Search: 441/25, 56, 57, 441/58, 59, 60, 61, 62, 63, 64; D12/236, 227, 238; 434/254

**References Cited**

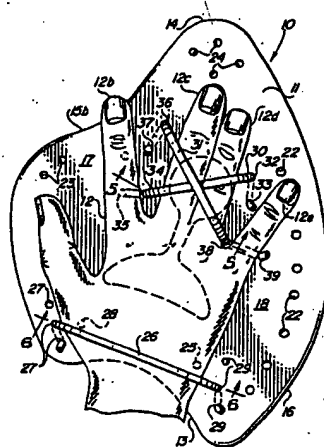
**U.S. PATENT DOCUMENTS**  
1,621,693 3/1927 Thoburn 441/58  
2,017,463 10/1933 Knecht 441/58  
2,108,429 2/1938 Math 441/58  
3,333,069 6/1951 Holcomb 441/58  
4,913,418 4/1990 Schluter et al. 272/71  
5,147,223 9/1992 Hansen et al. 441/58  
5,288,234 2/1994 Eason 441/58

Primary Examiner—Stephen Avila  
Attorney, Agent, or Firm—Warren F. B. Lindley

**[57] ABSTRACT**

A swimmer's hand paddle in the form of a rigid plastic member has a unique-shaped surface area, larger than the human hand and wider in the palm area than in the area of the middle finger, and has an irregularly-shaped aperture of a width approaching the width of the hand positioned at a location on the paddle as to be covered by the most sensitive area of the palm when the hand is properly positioned on the paddle. From one end of a proximal curved wrist edge to a point beyond the end of the thumb, the thumb side edge closely approaches the outer edge of the thumb and then curves inwardly and merges with a sharply curved distal end, whereas the little finger side edge extends with curved curvature from the distal end to the other end of the curved wrist edge. The area of the little finger side of the paddle is larger than the thumb side area, and has a curved row of perforations which closely approaches the little finger side edge for reducing the resistance to water of the little finger side during the routine of a swimming stroke. The user's hand is attached to and positioned on the paddle by sections of rubber tubing pulled through sets of perforations, one set positioned near the wrist edge and another set positioned at the approximate location of the base of the user's fingers.

14 Claims, 1 Drawing Sheet



Useless over 30 mph  
No ergonomically correct cut out gri



**(12) United States Design Patent** (10) Patent No.: US D439,299 S  
Chiang

(45) Date of Patent: Mar. 20, 2001

**[54] SWIMMING OAR**

(76) Inventor: Herman Chiang, 11-2F, No. 634-9 Chang-Ping Rd., Chung-Ho City Taipei Hsiao (TW)  
(\*) Term: 14 Years  
(21) Appl. No.: 29/224,966  
(22) Filed: Jan. 6, 2000  
(51) LOC (7) Cl.: 21-06  
(52) U.S. Cl.: D21/807; D21/808  
(58) Field of Search: D21/801, 806, D21/807, 808; 441/55-58, 60-64

**References Cited**

**U.S. PATENT DOCUMENTS**  
D. 363,754 10/1992 Johnson D21/807  
D. 397,187 8/1996 Bender D21/807  
D. 412,253 7/1999 Palmer D21/807  
5,511,988 4/1996 Johnson 441/58

\* cited by examiner

Primary Examiner—Kay H. Chio  
Assistant Examiner—C. Styles  
(74) Attorney, Agent, or Firm—Pro-TECHTOR Int'l Services

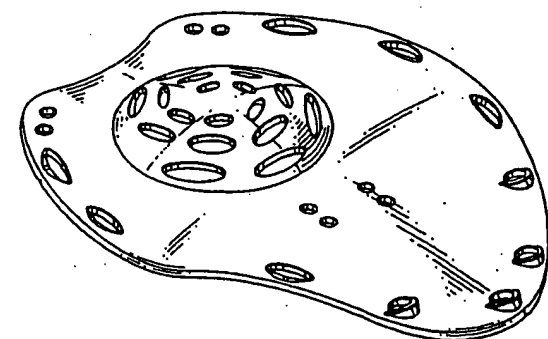
**[57] CLAIM**

The ornamental design for a swimming oar, as shown and described.

**DESCRIPTION**

FIG. 1 is a top, left, front, perspective view of a swimming oar showing any new design;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a rear elevational view thereof;  
FIG. 4 is a left elevational view thereof;  
FIG. 5 is a right elevational view thereof;  
FIG. 6 is a top plan view thereof;  
FIG. 7 is a bottom plan view thereof; and,  
FIG. 8 is a top, right, front, perspective view of reference of a swimming oar.

1 Claim, 6 Drawing Sheets



My dog loves these things!

**United States Patent** (19)

Liveoak

(11) Patent Number: 5,842,896  
(45) Date of Patent: Dec. 1, 1998

**[54] HAND OPERATED PADDLE**

(76) Inventor: Thimadga W. Liveoak, 501 Brentwood Dr., Madison, Ala. 35708

(21) Appl. No.: 259,562  
(22) Filed: Dec. 20, 1994

**Related U.S. Application Data**

(63) Continuation-in-part of Ser. No. 12,294, Aug. 30, 1993, Pat. No. 5,353,575.  
(51) Int. Cl.: A63B 31/10  
(52) U.S. Cl.: 441/54; 440/201  
(58) Field of Search: 440/101; 441/55, 441/56, 58; 416/70 R; D12/215; D21/239

**References Cited**

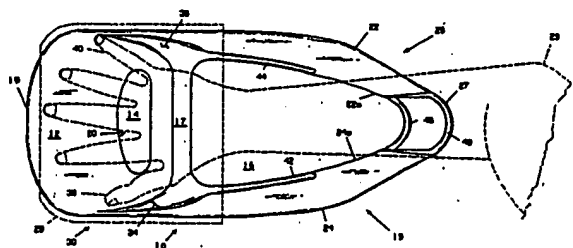
**U.S. PATENT DOCUMENTS**  
214,455 10/1879 Finkle 441/58  
2,397,429 2/1956 Math 441/58

Primary Examiner—Shannon Rodgers  
Attorney, Agent, or Firm—Mark Chaffin

**[57] ABSTRACT**

A paddle for use with a hand and forearm of a user is provided. The paddle has a paddle blade of a length shorter than its width, and generally encompasses an area approximating the span of the hand of a user. A support which provides support for the wrist extends from the paddle blade to a point near a user's elbow, with an opening in the support through which a user inserts a hand. A cover surrounds the hand and secures the paddle blade to the user's hand. As such, the user may rest an opened hand against the blade while using the paddle.

15 Claims, 3 Drawing Sheets



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# United States Patent

Rozenblad

(11) 4,351,525  
(45) Sep. 28, 1982

## [54] MULTIPLE USE EXERCISING DEVICES

[76] Inventor: William J. Rozenblad, 401 W. 56th St., New York, N.Y. 10019

[21] Appl. No.: 334,830

[22] Filed: Feb. 23, 1981

[31] Int. Cl. \_\_\_\_\_ A63B 21/00

[32] U.S. Cl. \_\_\_\_\_ 272/93

[52] Field of Search: 272/93, 111, 63, 144, 272/93, 126, 109, 244/243, 15/103.5, 104.54, 233, 7/167

## References Cited

### U.S. PATENT DOCUMENTS

1,741,109 6/1930 Dietz \_\_\_\_\_ 13/234  
2,239,453 10/1941 Mitchell \_\_\_\_\_ 13/234  
2,634,077 4/1955 Van Dusen \_\_\_\_\_ 348/243 X  
3,113,313 12/1963 Acs et al. \_\_\_\_\_ 272/128  
3,180,604 4/1965 Hammer \_\_\_\_\_ 348/243 X  
3,773,701 5/1971 Agoston \_\_\_\_\_ 272/128

3,444,447 5/1971 McCarthy \_\_\_\_\_ 272/128 X

3,444,703 6/1972 Ray \_\_\_\_\_ 15/232.4

4,044,373 5/1977 Elm \_\_\_\_\_ 272/63

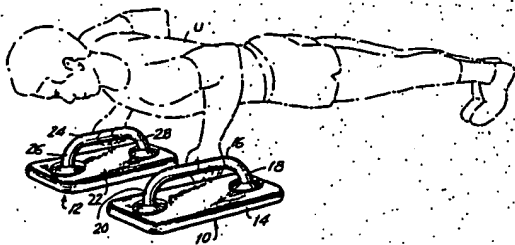
Primary Examiner—Richard C. Pinkham

Assistant Examiner—William A. Brown

## [57] ABSTRACT

An exercise device having one or two wood planks with relatively flat, inverted U-shaped members extending vertically upright thereon. The U-shaped members are tubular and include horizontal portions with ends thereon extending downwardly into the planks which serve as bases. Internal members in the ends include projections extending through the bases and engaged by locking members counterwound into the bases. The locking members are covered by non-slip mats. Collars encircle the aforementioned ends to aid in holding the U-shaped members upright.

3 Claims, 5 Drawing Figures



# United States Patent

Olson

(11) Patent Number: 4,585,228

(45) Date of Patent: Apr. 29, 1986

## [54] WEIGHT ASSEMBLY

[75] Inventor: Scott B. Olson, Bloomington, Minn.

[73] Assignee: North American Sports Training Corporation, Minneapolis, Minn.

[21] Appl. No.: 644,901

[22] Filed: Aug. 31, 1984

[31] Int. Cl. \_\_\_\_\_ A63B 21/12

[32] U.S. Cl. \_\_\_\_\_ 272/119, 272/67

[52] Field of Search: 272/119, 67, 68, 143, 272/116, 123, 24, 123/17, 272/119 A, 34-B

## References Cited

### U.S. PATENT DOCUMENTS

1,146,129 5/1934 Macle \_\_\_\_\_ 272/119 X  
1,970,305 5/1976 Hawkins \_\_\_\_\_ 272/119 X  
4,029,113 5/1977 Bohrer \_\_\_\_\_ 272/143 X  
4,125,407 1/1979 Davis \_\_\_\_\_ 272/119 X  
4,330,120 5/1980 Neel \_\_\_\_\_ 272/119 X  
4,346,997 1/1981 Elman \_\_\_\_\_ 272/119 X  
4,411,423 10/1981 Schreyer \_\_\_\_\_ 272/119 X  
4,531,011 6/1983 Schreyer \_\_\_\_\_ 272/119 X

## FOREIGN PATENT DOCUMENTS

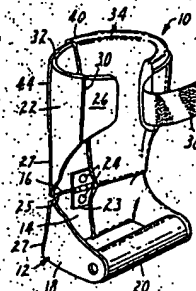
502776 2/1979 United Kingdom \_\_\_\_\_ 272/119

Primary Examiner—Richard J. Aspley  
Assistant Examiner—Robert W. Baber  
Attorney, Agent, or Firm—William L. Hochbach

## [57] ABSTRACT

A weight assembly adapted to be worn around a hand, wrist and forearm comprising a heavy metal hand strap like plate having a central portion adapted to generally cover and extend transversely across the back of the hand, and end portions projecting generally at right angles from opposite ends of its central portion a distance adapted to extend past the palm of the hand and a rubber grip extending between the end portions adapted to be encircled by the fingers and thumb of the hand. A heavy metal forearm plate extends for a predetermined distance from the wrist longitudinally along the forearm and is attached to the first plate by a hinge having a single pivot axis along the wrist. A flexible cover encloses the hand and forearm plates and the hinge, and includes a closure for releasably fastening the forearm plate to the forearm.

8 Claims, 4 Drawing Figures



# United States Patent

Puentes

(11) Patent Number: 5,358,463

(45) Date of Patent: Oct. 25, 1994

## [54] EXERCISE DEVICE

[76] Inventor: Jaime Puentes, 12 South Rd., Central Islip, N.Y. 11722

[21] Appl. No.: 952,599

[22] Filed: Sep. 28, 1993

[31] Int. Cl. \_\_\_\_\_ A63B 24/00

[32] U.S. Cl. \_\_\_\_\_ 482/343; 482/44; 482/147

[52] Field of Search: 482/44-46, 482/49, 141, 146, 147

## References Cited

### U.S. PATENT DOCUMENTS

3,113,313 12/1963 Acs et al. \_\_\_\_\_ 482/141  
3,730,321 5/1972 Sullivan \_\_\_\_\_ 482/147  
4,331,323 5/1980 Rozenblad \_\_\_\_\_ 482/141

4,513,228 4/1986 Olson \_\_\_\_\_ 482/44

4,764,775 5/1988 Thomas Jr. \_\_\_\_\_ 482/44

5,072,144 12/1991 Stangela \_\_\_\_\_ 394/44

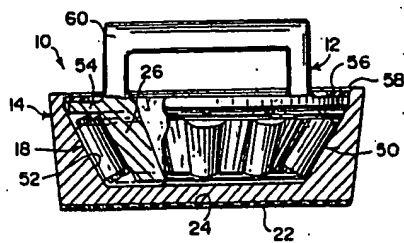
Primary Examiner—Richard J. Aspley

Assistant Examiner—James M. Molloy

## [57] ABSTRACT

An improved exercise device is provided which consists of a hand engaging member, a base for supporting the hand engaging member on an underlying surface and a mechanism for rotating the hand engaging member about a vertical axis relative to the base, so that a user can develop a forearm/arm and upper body, while doing push-ups, so as to better execute karate punches and other sport motions of a like nature.

7 Claims, 3 Drawing Sheets



# United States Patent

Cleto

(11) Patent Number: 5,530,967

(45) Date of Patent: Jul. 2, 1996

## [54] HOCKEY TRAINING GLOVES WITH ATTACHABLE AND REMOVABLE WEIGHTS

[76] Inventor: Robert Cleto, 190 Oak Ave., Island Heights, N.J. 08732

[21] Appl. No.: 385,444

[22] Filed: Sep. 13, 1994

[31] Int. Cl. \_\_\_\_\_ A61D 3/18; A61D 13/10

[32] U.S. Cl. \_\_\_\_\_ 2/16; 2/160

[52] Field of Search: 2/16, 159, 160, 2/161.1, 162, 20; 273/57.2; 482/44, 105, 93

## References Cited

### U.S. PATENT DOCUMENTS

4,034,979 7/1977 Weiss \_\_\_\_\_ 273/54  
4,239,211 12/1980 Williams \_\_\_\_\_ 482/105  
4,547,057 1/1981 Schwartz \_\_\_\_\_ 273/119  
4,330,120 5/1980 Neel \_\_\_\_\_ 273/119  
4,371,943 5/1980 Post, Jr. \_\_\_\_\_ 371/60  
4,384,714 5/1980 Elman \_\_\_\_\_ 482/105  
4,384,190 5/1980 Williams \_\_\_\_\_ 273/119  
4,677,693 7/1987 Angus \_\_\_\_\_ 371/61.1  
4,684,123 5/1987 Pabry \_\_\_\_\_ 371/60  
4,705,404 10/1987 Longmire \_\_\_\_\_ 371/61.1

4,911,433 3/1990 Walker et al. \_\_\_\_\_ 482/105

4,922,418 5/1990 Hoffman \_\_\_\_\_ 482/105

4,967,418 11/1990 Marston \_\_\_\_\_ 2/16

## FOREIGN PATENT DOCUMENTS

2051912 3/1993 Canada \_\_\_\_\_ 482/105

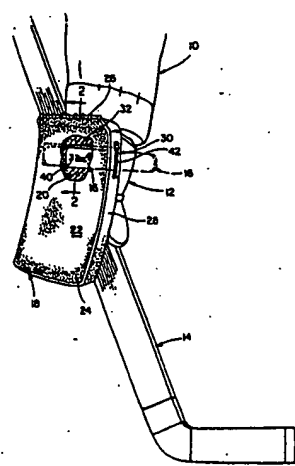
Primary Examiner—Michael A. Neas

Attorney, Agent, or Firm—Jacobson, Price, Holman & Stern

## [57] ABSTRACT

A hockey players gloves with attachable and removable weights in which the weights are insertable and removable from a pocket associated with the gloves. In certain embodiments, a portion of a blocking pad is positioned between the insert weights and the surface of the pad adapted to engage or block a hockey puck that may be traveling at a relatively high rate of speed. In other embodiments, the weight is insertable and removable from a pocket formed in the cuff area of each glove. The gloves may be used both as a warm up aid for use just prior to a game or as a training aid during various practice periods. The pocket receiving the weights is provided with a closure and the weights is preferably metal and provided with a coating of resilient material, such as rubber or the like.

3 Claims, 2 Drawing Sheets

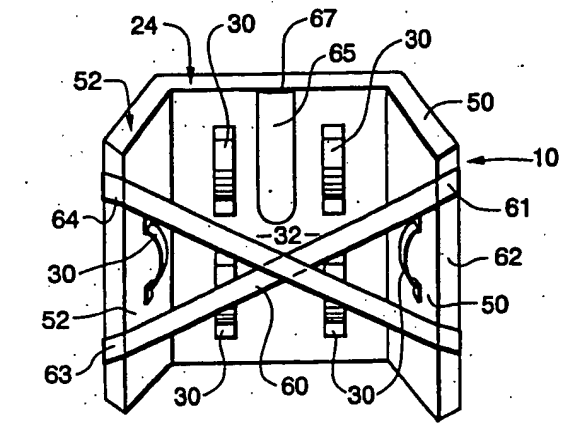


United States Patent (19) Patent Number: 5,501,649  
Queppel (45) Date of Patent: Mar. 26, 1996

(54) MARTIAL ARTS TRAINING PAD AND BLOCKING SHIELD  
(76) Inventor: Timothy J. Queppel, 117 Railroad Ave., Upland, Pa. 19380  
(21) Appl. No.: 329,415  
(22) Filed: Oct. 27, 1994  
(31) Int. Cl. A63B 69/24  
(32) U.S. Cl. 482/88; 434/247; 482/86  
(37) Field of Search: 434/247, 251; 482/84, 87, 86, 85; 273/25 A, 35 R, 37, 3

OTHER PUBLICATIONS  
Advertizing for blocking/protection equipment from Blackbelt magazine, Jan. 1979 and Sep. 1989.  
Primary Examiner—Jessica J. Harrison  
Assistant Examiner—Michael O'Neill  
Attorney, Agent, or Firm—Brennan, George & Kufnick

ABSTRACT  
The invention relates to a combination training pad and blocking shield for use in martial arts training. The pad and blocking shield is portable and has frontal and side strike zones which allow an athlete training in martial arts to spontaneously practice frontal and lateral kicks and punches on the shield while such shield is held by a partner as well as old and high level attack techniques, without concern for the safety of the partner.  
9 Claims, 2 Drawing Sheets

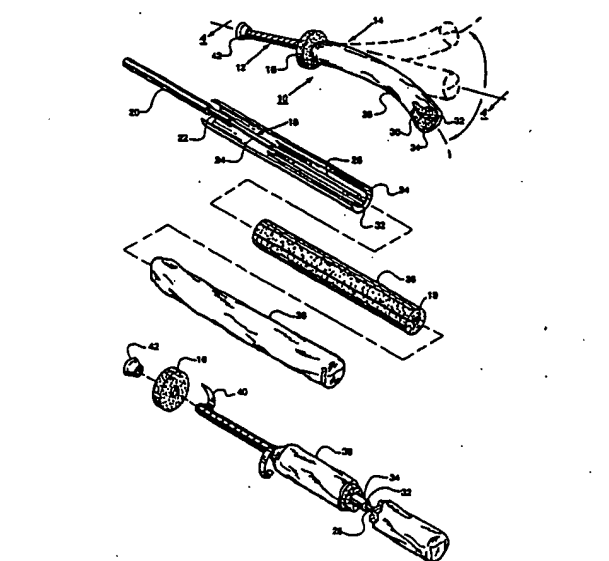


United States Patent (19) Patent Number: 6,036,602  
Abbott (45) Date of Patent: Mar. 14, 2000

(54) FULL CONTACT MARTIAL ARTS SPARRING INSTRUMENT  
(76) Inventor: Dase G. Abbott, 4905 E. Beverly Ln., Phoenix, Ariz. 85032  
(21) Appl. No.: 09/274,540  
(22) Filed: Mar. 23, 1999  
(31) Int. Cl. F41A 33/00; A63H 33/00  
(32) U.S. Cl. 463/47.2; 463/47.7; 482/12  
(37) Field of Search: 463/47.2, 47A, 463/47.7; 482/12, 109

ABSTRACT  
A sparring instrument is disclosed which allows for soft, pain free, full contact training. The sparring instrument comprises a handle and a striking portion having a bushing armature mounted thereon. The bushing armature comprises a tip rod telescopically received within a plurality of telescopically mounted cylinders. The bushing armature is covered by a sheath extending beyond the tip rod. The sheath is covered by a soft, flexible material to its end. The sheath is made of a soft, resilient material whereby the sheath extends from the end of the soft, flexible material when the instrument is bent.

References Cited  
U.S. PATENT DOCUMENTS  
1,986,682 1/1933 Schell  
4,957,057 9/1990 Mascard  
5,291,928 3/1994 Tucke



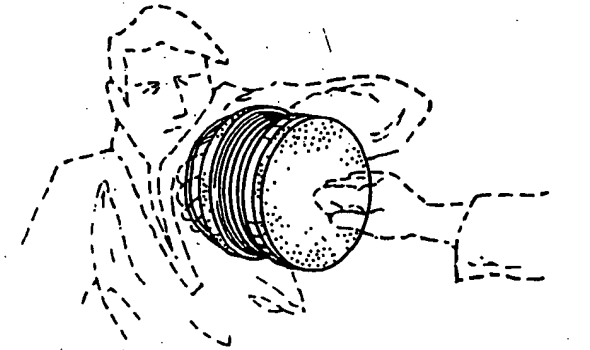
18 Claims, 2 Drawing Sheets

United States Patent (19) Patent Number: Des. 420,413  
Gonzalez (45) Date of Patent: Feb. 8, 2000

(54) MARTIAL ARTS TRAINING DEVICE  
(76) Inventor: Richard J. Gonzalez, HC 30, Box 833, 4250 Coyote Gulch, Prescott, Ariz. 86301  
(21) Appl. No.: 29/101,233  
(22) Filed: Mar. 1, 1999  
(31) LOC (7) Cl. 21-42  
(32) U.S. Cl. D21/794  
(37) Field of Search: D21/662, 787, D21/798; 482/83, 84, 85, 86, 87, 88, 89, 90; 473/444

ABSTRACT  
The ornamental design for a martial arts training device, as shown and described.  
FIG. 1 is an isometric view of a martial arts training device showing my new design.  
FIG. 2 is a side elevation thereof.  
FIG. 3 is a top view thereof.  
FIG. 4 is a side elevation thereof, both sides being generally the same except that one is the mirror image of the other.  
FIG. 5 is a bottom view thereof; and,  
FIG. 6 is a front elevation thereof.  
The broken line portions of the FIG. 1 drawing are for illustrative purposes only and form no part of the claimed design.

References Cited  
U.S. PATENT DOCUMENTS  
D. 263,808 1/1982 Kye D21/692  
3,526,317 10/1970 Olson 482/83  
4,084,811 4/1978 Kye 482/83  
4,978,408 10/1994 Bruckner 482/83  
4,775,148 10/1988 McLaughlin 482/83



1 Claim, 1 Drawing Sheet

United States Patent (19) Patent No.: US 6,325,747 B1  
Norblom (45) Date of Patent: Dec. 4, 2001

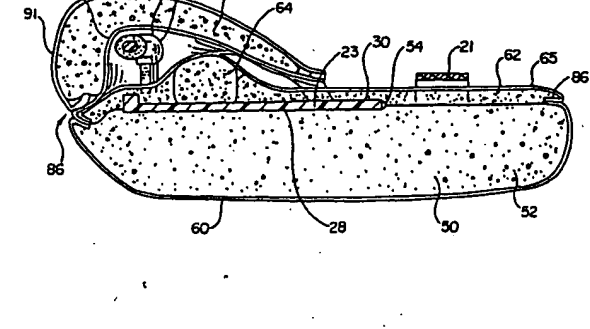
(54) MARTIAL ARTS TRAINING DEVICE  
(76) Inventor: Terry Lee Norblom, St. Louis Park, MN (US)  
(73) Assignee: Center Ring Martial Arts, Inc., Chanhassen, MN (US)  
(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

ABSTRACT  
This patent is subject to a terminal disclaimer.

References Cited  
U.S. PATENT DOCUMENTS  
4,942,634 3/1990 Cho 2/18  
4,994,579 3/1991 Cho et al. 602/21  
5,146,634 9/1992 Bruckner 2/18  
5,330,967 7/1994 Cho 2/20

ABSTRACT  
A martial arts training device is provided by the present invention. The martial arts training device includes an integrally constructed target pad and striking glove. The target pad is provided for protecting a wearer's forearm when an opponent strikes the pad. The striking glove is provided for protecting the wearer's hand when the wearer strikes another combatant or another target pad.

10 Claims, 1 Drawing Sheet



10 Claims, 1 Drawing Sheet

# United States Patent

(54) SNOWMOBILE'S AVALANCHE SHOVEL  
(76) Inventor: Lyle Robinson, 3354 S. 3200 W.,  
Kearns, Utah 84118

(21) Appl. No. 786,444  
(22) Filed: Sep. 3, 1994  
(51) Int. Cl. 7: B60D 29/00  
(52) U.S. Cl. 294/57; 294/403  
(53) Field of Search: 294/57, 59; 224/403, 405, 403

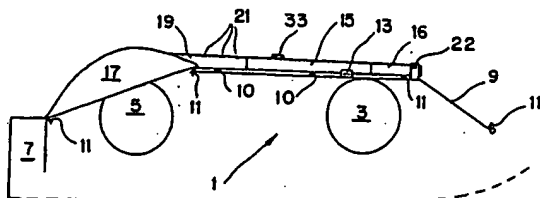
(56) References Cited  
U.S. PATENT DOCUMENTS  
1,471,204 12/1923 Conroy et al. 294/51  
3,228,149 12/1960 McKeown 294/51  
3,980,217 10/1976 Yuchan 294/513  
3,984,374 10/1976 Ives 294/406  
4,009,435 10/1977 Lile 294/403  
4,700,420 10/1987 Belanger 294/403  
4,993,748 11/1991 Ives 294/406  
5,044,832 9/1991 White 294/57  
5,043,523 11/1991 Campbell 294/404

US00057873A  
(11) Patent Number: 5,678,873  
(43) Date of Patent: Oct. 21, 1997

Primary Examiner—Dean Kramer  
Attorney Agent, or Firm—Patent & Trademark Services,  
Inc.; Joseph H. McCreary; Thomas Zack

(57) ABSTRACT  
A two piece shovel mounted on a vehicle such as snowmobile. A mounting cover extends over part of the vehicle's transmission and serves to support the shovel head and its attached upper handle section and the lower separated handle section. Cover prongs may engage holes in the handle sections along with several fasteners to provide this support. The shovel's head also overlaps and protects part of the vehicle's transmission. A series of bolts in the upper handle section serve as receptors for a spring biased pin located on the lower handle section. By selectively engaging these bolts with the pin, the total assembled handle length may be adjusted. Additional features include a lower handle component for emergency use and a latched emergency procedure on the shovel head's back.

8 Claims, 1 Drawing Sheet



# United States Patent

(54) COMPACT SNOW DIGGING IMPLEMENT  
(75) Inventor: Chris St. Jeor, Salt Lake City, Utah  
(73) Assignee: Innovations de Jeor, LLC, Salt Lake City, Utah

(21) Appl. No. 09/063,848  
(22) Filed: Aug. 24, 1997

Related U.S. Application Data  
(63) Continuation-in-part of application No. 08/100,449, Sep. 25, 1994, abandoned.  
(51) Int. Cl. 7: E01H 5/02  
(52) U.S. Cl. 294/54.5; 37/265  
(53) Field of Search: 294/1.1, 1.3, 54.5, 294/53; 248/99; 37/265, 278, 284, 285; 141/10, 106, 109, 114, 314

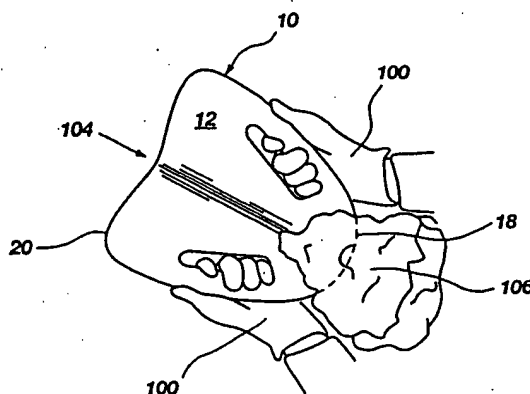
(56) References Cited  
U.S. PATENT DOCUMENTS  
112,727 3/1871 Low 141/106  
3,411,577 10/1952 Ziegler  
3,934,087 2/1976 Alexander  
4,243,411 1/1981 McMath  
4,514,799 5/1983 O'Donnell  
4,607,672 9/1986 Horner

US006113168A  
(11) Patent Number: 6,113,168  
(43) Date of Patent: Sep. 5, 2000

Primary Examiner—Dean J. Kramer  
Attorney Agent, or Firm—Thorpe, North & Western, LLP

(57) ABSTRACT  
A lightweight, compact implement for digging snow, comprising a substantially flat sheet of flexible, resilient material having a front face, a back face, a top edge, a bottom edge, a right edge, and a left edge, and handles attached near the right edge and the left edge thereof, whereby a user grasping the sheet by the handles may selectively deform the sheet into a shovel head shape and use it to cut and transport volumes of snow using the top edge or bottom edge. The handles may comprise oblong head holes formed near the right and left edges of the sheet, or may comprise handles or straps affixed near the edges. The top edge is short and rounded so as to facilitate digging of hard or packed snow, while the bottom edge is longer and less rounded to allow digging of comparatively larger volumes of light or soft snow.

20 Claims, 3 Drawing Sheets



# United States Patent

(54) INNOVATIVE INCLINED PLANE EARTH ENGAGING TOOL  
(75) Inventor: Chad T. Watts, Dallas, TX (US)  
(73) Assignee: Chad Watts

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
(21) Appl. No. 09/417,943  
(22) Filed: Oct. 13, 1999  
(51) Int. Cl. 7: E02F 9/28  
(52) U.S. Cl. 374/58; 374/51  
(53) Field of Search: 374/44, 440, 450, 374/51, 452, 453, 454, 460; 172/753, 749, 772, 772.5

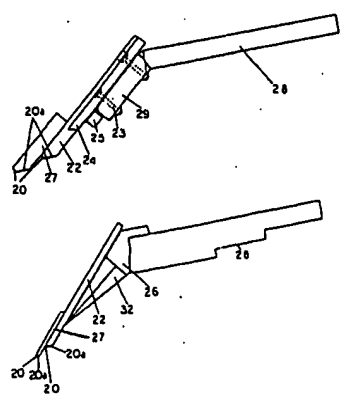
(56) References Cited  
U.S. PATENT DOCUMENTS  
3,124,230 A \* 7/1938 Hume et al. 374/40  
3,230,804 A \* 7/1941 Collins 374/53  
3,231,487 A \* 7/1941 Hume et al. 374/53  
3,433,021 A \* 12/1967 Mott 374/53  
3,546,457 A \* 3/1971 Lander et al. 374/53  
3,550,293 A \* 12/1970 Hume 374/50  
3,648,391 A \* 3/1972 Ealey et al. 374/53  
3,888,027 A \* 6/1975 Thorne 374/40

US006446368B1  
(10) Patent No.: US 6,446,368 B1  
(43) Date of Patent: Sep. 10, 2002

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
(21) Appl. No. 09/417,943  
(22) Filed: Oct. 13, 1999  
(51) Int. Cl. 7: E02F 9/28  
(52) U.S. Cl. 374/58; 374/51  
(53) Field of Search: 374/44, 440, 450, 374/51, 452, 453, 454, 460; 172/753, 749, 772, 772.5

(56) References Cited  
U.S. PATENT DOCUMENTS  
3,124,230 A \* 7/1938 Hume et al. 374/40  
3,230,804 A \* 7/1941 Collins 374/53  
3,231,487 A \* 7/1941 Hume et al. 374/53  
3,433,021 A \* 12/1967 Mott 374/53  
3,546,457 A \* 3/1971 Lander et al. 374/53  
3,550,293 A \* 12/1970 Hume 374/50  
3,648,391 A \* 3/1972 Ealey et al. 374/53  
3,888,027 A \* 6/1975 Thorne 374/40

6 Claims, 8 Drawing Sheets



# United States Patent

(54) ONE HANDED SHOVEL FOR HANDICAPPED  
(75) Inventor: Raymond Thomas Michaud, 21  
Blanchard Rd., Springvale, ME (US)  
04083

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
(21) Appl. No. 09/981,047  
(22) Filed: Oct. 18, 2001  
(51) Int. Cl. 7: E02F 1/04; A01B 1/22  
(52) U.S. Cl. 294/58; 294/53; 164/30  
(53) Field of Search: 294/25, 57-59; 164/22, 426, 430

(56) References Cited  
U.S. PATENT DOCUMENTS  
309,437 A \* 12/1884 Calkins 294/58  
712,843 A \* 11/1902 Ford 172/144  
2,482,559 A \* 9/1949 Maguire 151/33.1  
4,944,541 A \* 7/1990 Wolchukhin 164/26  
5,451,083 A \* 9/1995 Wagner 164/22  
5,471,698 A \* 12/1995 French et al. 151/44.1

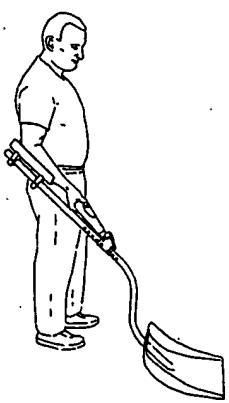
US006464722B1  
(10) Patent No.: US 6,464,272 B1  
(43) Date of Patent: Oct. 15, 2002

(54) ONE HANDED SHOVEL FOR HANDICAPPED  
(75) Inventor: Raymond Thomas Michaud, 21  
Blanchard Rd., Springvale, ME (US)  
04083

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
(21) Appl. No. 09/981,047  
(22) Filed: Oct. 18, 2001  
(51) Int. Cl. 7: E02F 1/04; A01B 1/22  
(52) U.S. Cl. 294/58; 294/53; 164/30  
(53) Field of Search: 294/25, 57-59; 164/22, 426, 430

(56) References Cited  
U.S. PATENT DOCUMENTS  
309,437 A \* 12/1884 Calkins 294/58  
712,843 A \* 11/1902 Ford 172/144  
2,482,559 A \* 9/1949 Maguire 151/33.1  
4,944,541 A \* 7/1990 Wolchukhin 164/26  
5,451,083 A \* 9/1995 Wagner 164/22  
5,471,698 A \* 12/1995 French et al. 151/44.1

1 Claim, 3 Drawing Sheets



## [54] Eviscerating and skinning knife

[76] Inventor: Carl J. Addis, 115 Valley Dr., Casper, Wyo. 82601

[22] Filed: June 19, 1973

[21] Appl. No.: 264,260

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 139,981, July 4, 1971, abandoned.

[52] U.S. Cl. 30/287, 30/155

[51] Int. Cl. B26D 29/02

[58] Field of Search 30/286, 287, 294, 295,

30/299, 317, 155; 7/14.1

## [56] References Cited

## UNITED STATES PATENTS

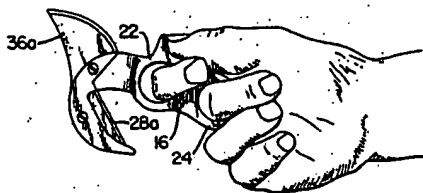
477,006	3/1972	Walter	30/293
838,332	12/1908	Echley	30/287
1,424,433	1/1923	Angled	30/287
2,904,021	9/1959	Cromago	30/293
3,241,236	3/1966	Capps	30/287
D121,622	8/1941	Dorcas	30/317 X

Primary Examiner—A. Lawrence Smith  
Assistant Examiner—J. C. Peters  
Attorney, Agent, or Firm—Sheridan, Ross & Fields

## ABSTRACT

A knife for use in eviscerating animals and of particular utility to hunters of game animals which are usually eviscerated at the scene of the kill. It is characterized by a hook-shaped member having a cutting edge at the inner portion of the thigh thereof and having roller control depressors at the free end which roll along the inner or viscera side of the hide. It is of the draw-cut type, pulled by a ring or rings attached to a shank of the member which, in an optional form, may be a pivotal connection which permits folding of the parts into compact relationship. In an optional form of the invention the rollers may be replaced with a ball-shaped depressor which is of particular utility in skinning or eviscerating the hide, rather than eviscerating entrails. In another optional form a second blade, is provided for cutting between the skin and carcass.

3 Claims, 15 Drawing Figures



## United States Patent (19)

## Allen

(11) Patent Number: Des. 348,380

(43) Date of Patent: Jul. 5, 1994

## [54] BLUNT NOSE KNIFE

[76] Inventor: Charles Allen, 602 E. 4th St., Austin, Tex. 78751

[\*\*] Term: 14 Years

[21] Appl. No.: 8,763

[22] Filed: May 23, 1993

[52] U.S. Cl. D7/649

[58] Field of Search D7/649, 642, 645, 650,

D7/652, 664; 30/147-149, 344, 346.33, 346.36

## [56] References Cited

## U.S. PATENT DOCUMENTS

D. 178,433	6/1936	Jorge	D7/649
D. 267,622	1/1953	Russell	D7/649

Primary Examiner—Alan P. Douglas  
Assistant Examiner—Caron D. Veyrat  
Attorney, Agent, or Firm—Gumbrell, Wilson & Hamilton

## [71] CLAIM

The ornamental design for a blunt nose knife, as shown.

## DESCRIPTION

FIG. 1 is a right perspective view of the blunt nose knife of the present invention;

FIG. 2 is a left perspective view of the blunt nose knife of the present invention;

FIG. 3 is a top view of the blunt nose knife of the present invention;

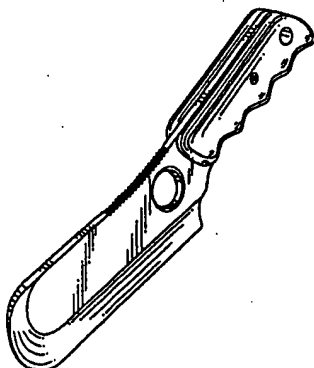
FIG. 4 is an elevational right side view of the blunt nose knife of the present invention;

FIG. 5 is a front view of the blunt nose knife of the present invention;

FIG. 6 is a rear view of the blunt nose knife of the present invention;

FIG. 7 is an elevational left side view of the blunt nose knife of the present invention; and,

FIG. 8 is a bottom view of the blunt nose knife of the present invention.



## United States Patent (19)

## Schrock et al.

(11) 4,087,911

(43) May 9, 1978

## [54] FINGER HOLE KNIFE

[76] Inventors: Maurice D. Schrock, c/o George Specer, 3615 Woodworth Bldg., 233 Broadway; George Specer, 3615 Woodworth Bldg., 233 Broadway, both of New York, N.Y. 10007

[21] Appl. No.: 633,830

[22] Filed: Nov. 20, 1975

[52] Int. Cl. B26B 29/00

[51] U.S. Cl. 30/286; 30/153;

[58] Field of Search 30/153, 291, 294, 290,

30/298; 30/240

## [56] References Cited

## U.S. PATENT DOCUMENTS

449,031	3/1961	Burns	30/240 X
3,839,788	10/1974	Addis	30/287

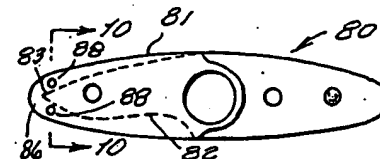
Primary Examiner—A. Lawrence Smith

Assistant Examiner—J. T. Zetser

## ABSTRACT

An improved design of knife in which there is a knife blade and a handle for being held in a user's hand, the handle having a hole extending therethrough so that a finger of the user can be inserted therein so as to provide a more firm grip and prevent slipping of the knife in the hand; the knife design being readily adaptable for any knife such as either a pocket knife, boot knife, hunting knife or the like.

2 Claims, 10 Drawing Figures

(12) United States Patent  
De Luccia

(10) Patent No.: US 6,378,745 B1

(43) Date of Patent: Apr. 30, 2002

## [54] KNIFE HOLSTER FOR A HAND

[76] Inventor: Donalio B. De Luccia, 1842 Colden Ave., Bronx, NY (US) 10462

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

[21] Appl. No.: 09/643,128

[22] Filed: Sep. 15, 2000

[51] Int. Cl. A45C 11/00

[52] U.S. Cl. 224/218; 307/6; 224/232

[58] Field of Search 224/218, 219,

224/222, 232; 307/60

## [56] References Cited

## U.S. PATENT DOCUMENTS

3,693,375	A	9/1972	Posner	224/218
4,089,294	A	1/1978	Reich	
D251,568	S	4/1979	Johnson	
D771,100	S	11/1983	Sherwin	

3,002,213	A	3/1961	Horvath et al.	
3,421,498	A	6/1969	Isom	307/60
3,442,555	A	8/1969	Jude	224/218
3,444,923	A	8/1969	LaFolier	224/219
3,513,073	A	1/1970	Flanagan	224/218
3,791,702	A	8/1970	Samson et al.	
3,822,408	A	10/1970	Kennedy	224/222
3,878,500	A	3/1976	Esposito	224/222
3,928,089	A	8/1976	Alonso-Morales	224/222
3,967,391	A	10/1976	Hend	224/218
3,971,240	A	10/1976	Douglas	224/218
4,146,319	A	11/2000	Tanaka	224/219

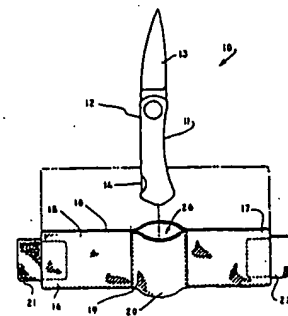
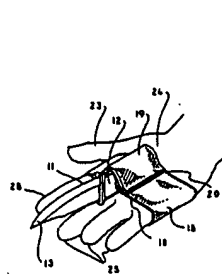
cited by examiner

Primary Examiner—Stephen P. Garbo

## ABSTRACT

A knife holster for a hand for holding and supporting a blade between the user's fingers. The knife holster for a hand includes a knife having a handle and a blade pivotally and lockingly attached to the handle; and also includes a strap assembly being adapted to fasten about a user's hand and being adapted to support the knife upon the user's hand.

11 Claims, 2 Drawing Sheets



## [54] DEPLOYABLE WING BACK PACK

[73] Inventor: Karel W. Mays, Miami, Fla.  
 [72] Assignee: Lawrence Puka Associates, Inc.,  
 New York, N.Y.; a part interest

[22] Filed: Apr. 30, 1975  
 [21] Appl. No.: 573,134

[32] U.S. Cl. 244/44; 244/138 R;  
 244/143  
 [31] Int. Cl. B64C 31/04  
 [58] Field of Search 244/143, 147, 64, 16,  
 244/138 R, 142, 131 R

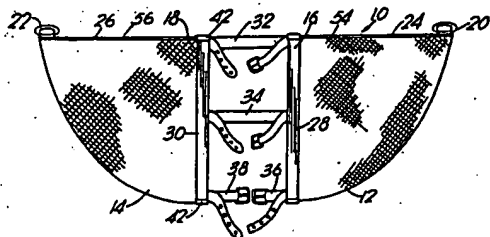
[56] References Cited  
 UNITED STATES PATENTS  
 2,047,422 1/1937 Soke et al. 244/138 R X  
 2,181,324 1/1939 Griffin 244/138 R X  
 FOREIGN PATENTS OR APPLICATIONS  
 825,884 1/1938 France 244/143

Primary Examiner—Trygve M. Bils  
 Assistant Examiner—Barry L. Kelmacher  
 Attorney, Agent, or Firm—Jack D. Slobod

## [57] ABSTRACT

A pair of sector-shaped wings stored in a pair of spaced apart elongated housings strapped vertically to the back of the user and adapted to be deployed from the housings utilizing rotatably mounted handles secured to the wings. Each housing has a longitudinal opening through which a wing is packed into a housing and deployed therefrom. Each wing comprises a pliable sheet of material which is secured to its respective housing along one side margin and secured to a right strip at another side margin. The strips are pivotally mounted and carry the handles which allow the wings to be manipulated by the arms of the user for accomplishing sky diving maneuvers.

8 Claims, 6 Drawing Figures



## United States Patent (19)

Yamanaka

(11) Patent Number: 6,146,292

(45) Date of Patent: Nov. 14, 2000

## [54] THROWING GOOD FOR USE IN SKY DIVING

[73] Inventor: Atsushi Yamanaka, 4-31-13,  
 Midori-cho, Yokosuka-shi,  
 Saitama-Ken, Japan

[22] Filed: Mar. 2, 1999  
 [32] U.S. Cl. A63B 43/00  
 [31] Int. Cl. 473/549; 473/554; 473/581  
 [58] Field of Search 473/573, 594,  
 473/569, 578, 587; 273/360, 361, 363

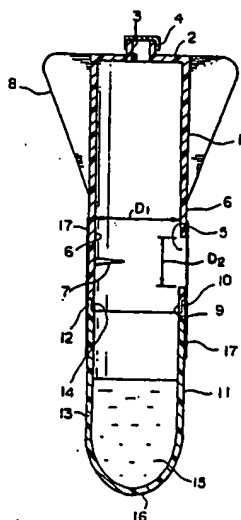
[56] References Cited  
 U.S. PATENT DOCUMENTS  
 5,415,520 12/1998 Woodward 273/360  
 4,135,539 1/1979 Denby 273/363  
 4,514,023 5/1996 Weaver 473/594  
 5,324,456 7/1996 Liu et al. 473/594  
 5,034,942 11/1990 McLeese 473/581

Primary Examiner—Steven Wong  
 Attorney, Agent, or Firm—O'Brien, Spivak, McCalland,  
 Maier & Neustadt, P.C.

## [57] ABSTRACT

A throwing good for use in sky diving, including a thin-gage, synthetic resin-made back body, a roughly circular opening window, a needle, a front body, and ballast water. The back body has a bottom and a cylindrical shape. The bottom has a small hole which can be opened and closed as will by means of a plug. The opening window is provided on the wall close to the front opening of the back body. The needle is directed toward the opening window protruded from the inner wall confronting the opening window. The front body has the same diameter as that of the back body of which back opening has a lip shaped into a hemisphere. The back opening of the front body is joined to the front opening of the back body and the joining portion is integrally by covering it with a rubber band of broad width capable of covering even the opening window. The ballast water fills the front body.

1 Claim, 5 Drawing Sheets



## [54] JUMPING GARMENT FOR A PARACHUTIST

[73] Inventor: Marcel Pravaz, Cligny, France  
 [72] Assignee: Etudes et Fabrications  
 Aeronautiques, Paris, France

[22] Filed: Dec. 11, 1974  
 [21] Appl. No.: 531,468

[30] Foreign Applications Priority Date  
 Dec. 29, 1973 France 73-45483

[32] U.S. Cl. 2/79  
 [31] Int. Cl. A61D 13/02  
 [58] Field of Search 2/79, 75, 80,  
 2/81, 82, 2.1, 227; 244/143, 146, 143 R

[56] References Cited  
 UNITED STATES PATENTS  
 1,003,349 10/1911 Dubois 321.1 R X  
 1,232,187 1/1918 Shaw 2/80G, 1

1,782,483 12/1930 Shaw 2/79  
 3,045,243 7/1963 Loh et al. 2/82 X  
 3,113,328 12/1963 Charvillat et al. 2/81  
 3,294,636 1/1967 Lohr et al. 2/80G, 1  
 3,742,519 7/1973 Garcia 2/79

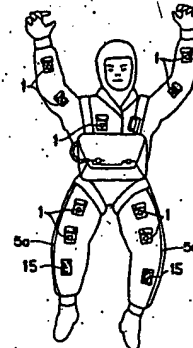
FOREIGN PATENTS OR APPLICATIONS  
 1,155,985 12/1937 France 2/80G, 1  
 723,942 5/1935 Italy

Primary Examiner—Alfred R. Quest

## [57] ABSTRACT

Jumping garment for a parachutist in which means are incorporated for increasing the drag during the free fall. The drag-increasing means comprise openings formed in the wall of the garment in at least one of the sides of the body. The openings are adapted to allow direct entry of air into the space defined by the garment around the body of the parachutist so as to fully inflate the garment.

15 Claims, 6 Drawing Figures



## (12) United States Patent

Mason

(10) Patent No.: US 6,368,112 B1

(45) Date of Patent: Apr. 9, 2002

## [54] SKY DIVING TRAINING DEVICE

[73] Inventor: Jeffrey S. Mason, 13083 Heather Rd.,  
 DeSoto, MO (US) 63020

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

[22] Filed: Jan. 28, 2000  
 [32] U.S. Cl. A63B 49/18  
 [31] Int. Cl. 434/253; 434/247; 434/258;  
 472/59; 482/51; 482/147  
 [58] Field of Search 434/247, 258,  
 434/380, 397, 433, 233, 254; 472/59, 135;  
 463/36; 273/440, 454; 482/146, 147, 31

[56] References Cited  
 U.S. PATENT DOCUMENTS  
 563,578 A \* 7/1896 Emerson  
 1,176,245 A \* 3/2516 Huetten  
 1,329,660 A \* 2/1920 Kaye  
 3,578,361 A \* 5/1971 Young  
 4,290,025 A 9/1981 Minoshima  
 4,336,515 A 6/1983 Gilliam  
 4,505,477 A 3/1983 Williams  
 4,749,180 A \* 6/1988 Brown  
 4,739,538 A 7/1988 Woods  
 4,787,630 A 11/1988 Watson et al.

4,875,672 A \* 10/1989 Armstrong  
 4,933,833 A 9/1990 Loeas  
 4,933,838 A \* 9/1990 Zeff  
 4,946,346 A \* 10/1990 Eggenberger  
 5,200,417 A \* 9/1990 Sedberry et al.  
 5,242,336 A \* 9/1993 Onasch  
 5,328,427 A 7/1994 Desmarais  
 5,545,115 A 9/1996 Carone  
 5,630,776 A 5/1997 Goodwater  
 5,795,277 A 8/1998 Brumbyer  
 5,893,340 A \* 4/1999 Kohn

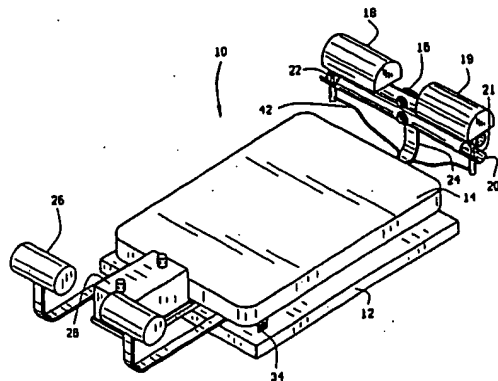
\* cited by examiner

Primary Examiner—Jacob K. Ackon, Jr.  
 Assistant Examiner—Bern B. Miller  
 (74) Attorney, Agent, or Firm—Polster, Liecht, Woodruff &  
 Luchessa

## [57] ABSTRACT

A sky diving training device for training a student to assume the correct position for free fall. The device has a platform mounted on a swivel. The student lies face down on the platform with his shoulders on a scoring bar. When the student diver allows one shoulder to drop, the device begins rotating in a predetermined direction. When the student corrects his shoulder position, the device stops rotating, however if the student over corrects the shoulder, the device begins rotating in the opposite direction. The rotation simulates what happens in a free fall if the diver allows one shoulder to drop even slightly.

9 Claims, 4 Drawing Sheets



# United States Patent

111 3,581,740

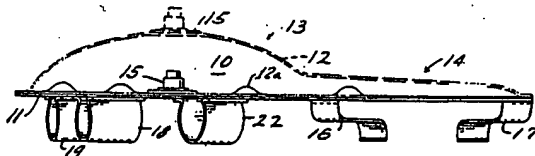
[72] Inventor: Robert D. Sherbourne  
Findlay, Ohio  
[21] Appl. No.: 554,530  
[22] Filed: Sept. 3, 1968  
[43] Patent: June 1, 1971  
[73] Assignee: R.L. K&S Co., Inc.  
Findlay, Ohio

[56] References Cited  
UNITED STATES PATENTS  
2,880,721 4/1959 Corcoran 128/240UX  
FOREIGN PATENTS  
733,700 6/1964 Canada 128/87  
Primary Examiner—L. W. Trapp  
Attorney—Owen & Owen

## [54] INFLATABLE DEVICE FOR ARTHRITIC THERAPY

13 Claims, 6 Drawing Figs.  
U.S. Cl. 128/77, 128/87A  
Int. Cl. A61F 1/00  
Field of Search 128/26, 87, 132, 133, 77; 84/467, 468; 272/67

**ABSTRACT:** An inflatable splint for extending the fingers and wrist of the hand of the wearer. The splint has an inflatable chamber extending over the hand and wrist area of the wearer, with one surface which assumes a planar configuration when the splint is inflated. The one surface has finger loops adapted to receive the fingers of the wearer and positioned such that, upon inflation, the fingers will be moved to a normally extended, spread-apart position. Wrist straps on the wrist area are provided to encircle the wearer's wrist so that, upon inflation, the wrist joint of the wearer will be moved to a straight position along with the extended fingers.



# United States Patent

Winter

111 3,942,194

[43] Mar. 9, 1976

## [54] PROSTHETIC DEVICE FOR HANDICAPPED PERSONS

[76] Inventor: Sybil Betty Anne Winter, 10124 W. Capitol Drive, Milwaukee, Wis. 53222

[22] Filed: Aug. 30, 1974  
[21] Appl. No.: 501,950

[52] U.S. Cl. 3/1; 3/12.8; 401/8  
[51] Int. Cl. A61F 1/00; A61F 1/06  
[58] Field of Search 3/12, 12.8, 1; 401/6, 8

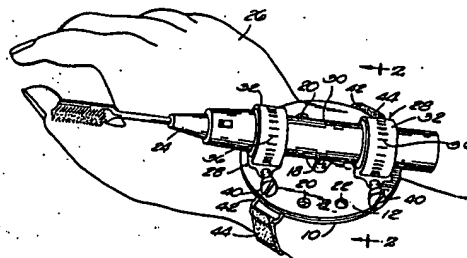
[56] References Cited  
UNITED STATES PATENTS  
2,889,160 6/1959 Nelson 3/12.8 X

Primary Examiner—Donald L. Frinks  
Attorney, Agent, or Firm—Wheeler, Mossell, House & Fuller

## ABSTRACT

Two stiff discs are rotatably attached together in face-to-face contact, one of the discs having a ring of openings therein, and the other disc having a nipple positioned to engage and latch in the openings. An implement holder is attached to one of the discs and a strap is attached to the other disc for strapping the two discs and implement holder to a person's hand. By rotating the disc carrying the implement holder with respect to the other disc, and clamping it in the desired position, the implement holder can be oriented in the proper rotary position for use of a predetermined implement by the person. The implement can be a knife, fork, comb, tooth brush, or any other suitable implement. The disc can be strapped to the palm of the person's hand, to the back of the hand, or to the wrist.

7 Claims, 5 Drawing Figures



UNITED STATES PATENT AND TRADEMARK OFFICE  
US00546444A

# United States Patent

Farquharson et al.

111 Patent Number: 5,464,444

[43] Date of Patent: Nov. 7, 1995

## [54] ATTACHMENT FOR ARTIFICIAL ARM PROSTHETIC DEVICE

[76] Inventor: Ronald B. Farquharson, Rm. 1, Box 3866 CR 628, Brazoria, Tex. 77622;  
Dwayne P. Solt, Rm. 3, Box 3, Angleton, Tex. 77515

[21] Appl. No.: 216,624  
[22] Filed: Mar. 23, 1994  
[51] Int. Cl. A61F 2/04; B23J 7/00  
[52] U.S. Cl. 623/63; 623/61; 623/62  
[58] Field of Search 623/61, 62, 63; 901/28; 901/29

## FOREIGN PATENT DOCUMENTS

0484180 9/1917 France 623/63  
006712 9/1918 Germany 623/63  
0220120 9/1920 Germany 623/63  
0645029 9/1922 Germany 623/63  
0100582 9/1923 Switzerland 623/63

## OTHER PUBLICATIONS

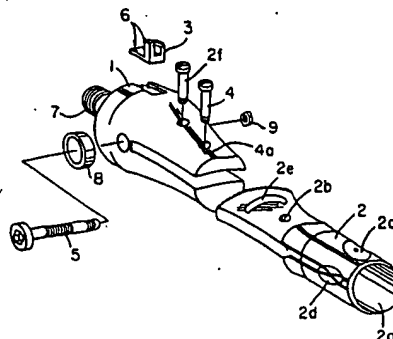
High Tech for the Handicapped pp. 78-79 (1991) by Larry Kendall, Kendall Press, Inc., N.J.

Primary Examiner—David H. Willis  
Assistant Examiner—Bruce E. Snow

## ABSTRACT

A terminal device is described which is attachable to the end of a prosthesis on an arm and there serves as an attachment site for a variety of tools or implements designed to mate with the terminal device. The terminal device comprises a firm main part in operable and pivotal combination with a second main part, the combined main parts providing on one end a device for attaching to the end of an arm prosthesis, and on the other a device for attaching a variety of implements, the said device for implementing attachment providing articulation capabilities that allow positioning of the implements in a variety of positions relative to the position of the arm prosthesis. Among the implements which can be attached are for example: cutting tools (such as saws, files, knives, scrapers, and awls); various wrenches (such as open end wrenches, closed end wrenches, ratchet wrenches, adjustable wrenches, Allen wrenches, and pipe wrenches); and a variety of other implements such as spoons, scrapers, spatulas, planes, brushes, fishing rods, and stirring devices.

13 Claims, 12 Drawing Sheets



# United States Patent

Hollerbach

111 Patent Number: 4,907,574

[43] Date of Patent: Mar. 13, 1990

## [54] PROM EXERCISE DEVICE FOR OPPOSING CONTRACTURE

[76] Inventor: Thomas R. Hollerbach, 2716 Stevens Ave., South, Minneapolis, Minn. 55408

[21] Appl. No.: 229,335  
[22] Filed: Aug. 4, 1988  
[51] Int. Cl. A61H 7/00  
[52] U.S. Cl. 128/46; 128/44; 128/DIG. 20  
[58] Field of Search 128/44, 45, DIG. 20, 128/24 R, DIG. 10, 160, 24, 157, 311, 165, 44

3,980,440 11/1976 Gaylord 128/165  
4,133,030 3/1979 Bishop 128/44  
4,274,399 6/1981 Mumment 128/26  
4,303,799 11/1981 Caples 128/DIG. 20  
4,340,042 7/1982 Smith 128/DIG. 20  
4,399,240 6/1986 Takahashi 128/26  
4,414,179 9/1986 Osterer 128/44  
4,415,232 10/1986 Hargrave 128/26  
4,571,231 6/1987 Bartholme 128/26

FOREIGN PATENT DOCUMENTS  
715700 6/1964 Canada 128/DIG. 20  
Primary Examiner—Edgar S. Burr  
Assistant Examiner—Huong Q. Pham

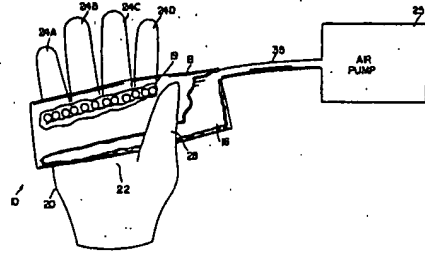
## ABSTRACT

A passive range of motion (PROM) device which manipulates hand muscles of patients suffering from contracture. The PROM device includes a glove for receiving the hand of a patient where the glove has an elastic sleeve secured to a palm side of the glove adjacent the points on the glove where fingers join the hand. The elastic sleeve is inflated to stretch and separate the fingers, and is deflated to allow the fingers to contract.

8 Claims, 5 Drawing Sheets

## U.S. PATENT DOCUMENTS

3,880,721 4/1959 Corcoran 128/77  
3,841,923 3/1964 Jacoby 128/DIG. 20  
3,816,315 12/1964 Smith et al. 128/165  
3,837,912 7/1966 Clark et al. 128/26  
3,895,588 2/1976 De Mars 128/33  
3,841,112 10/1970 Courtney 128/77  
3,841,740 6/1971 Sherbourne 128/77  
3,753,120 5/1973 Furrow 128/DIG. 20  
3,877,215 2/1976 Bartholme 128/DIG. 20



# United States Patent (19)

(11) 4,324,018  
(45) Apr. 13, 1982

(54) PAINT EQUIPMENT CLEANING TOOL  
(76) Inventor: Steve O. Olsson, 7951 Chicago Ave. South, Minneapolis, Minn. 55420

(21) Appl. No. 141,065  
(22) Filed: Apr. 17, 1980  
(31) Int. Cl. 2: B44 3/00  
(32) U.S. Cl. 15/234 R; 15/104.04; 15/105; 15/243  
(33) Field of Search: 15/237 R, 236 R, 103, 15/111, 104.04, 243, 401

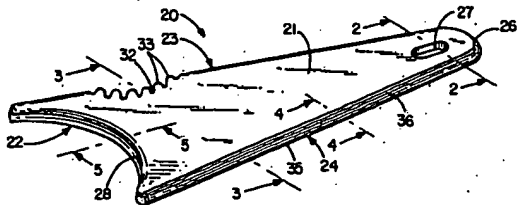
(56) References Cited  
U.S. PATENT DOCUMENTS  
D. 37,141 6/1897 Crossman D7/181  
D. 347,373 1/1978 Dunn, Jr. D7/181  
790,223 1/1980 Rohrer 15/234 R X  
1,960,824 1/1938 Kay 15/234 R X

1,019,447 1/1962 Geyson 15/234 R  
1,373,436 1/1968 Dahms 15/234 R X  
1,707,140 1/1973 Dahms 15/234 R

Primary Examiner—Chris K. Moore  
Attorney, Agent, or Firm—Burd, Barts & Outcassaf

(57) ABSTRACT  
A paint applicator cleaning tool for cleaning painting equipment, such as a paint roller, paint pads, and paint pans. The tool comprises a flat base having a first side with a first arcuate notch having an uninterrupted edge and curved to substantially conform to the outer periphery of a portion of a standard paint roller. A second side of the base has a second arcuate notch having a plurality of teeth operable to fluff the nap of the paint roller. The base has a third side which includes an elongate linear edge for cleaning paint pads and pans and the like.

17 Claims, 13 Drawing Figures



# United States Patent (19)

(11) Patent Number: Des. 386,372  
(45) Date of Patent: Nov. 18, 1997

(54) TOOL  
(76) Inventor: Sherman L. Weiss, 11360 Sherman Way, San Valley, Calif. 91352

(21) Term: 14 Years  
(22) Filed: Jun. 13, 1996  
(31) LOC (4) Cl. 08-45  
(32) U.S. Cl. D9/14; D22/23; D32/42; D32/49  
(33) Field of Search: D6/14, 19, 43, D4/105; D7/642; D32/21, 42, 46, 49; 7/105, 113; 15/103, 236.01, 236.03, 236.05, 236.07, 236.08, 236.09, 343.1; D4/136; D22/23

(56) References Cited  
U.S. PATENT DOCUMENTS  
D. 94,943 3/1933 Budge D7/642  
D. 302,634 10/1965 Oshio D32/43  
D. 337,775 4/1965 Panchen D32/43  
790,223 1/1980 Rohrer 7/113  
2,962,648 4/1962 Brown 15/103  
4,234,018 4/1982 Olsson 15/234 R X  
1,231,332 10/1993 Chellam 7/105  
5,571,762 12/1993 Hsu 15/103  
5,283,928 2/1994 Lim et al.

FOREIGN PATENT DOCUMENTS  
2770464 3/1994 United Kingdom 15/234.03

## OTHER PUBLICATIONS

Alway Tools Inc. Catalog, 1993, p. 10, DS13 Buckin Disposable Putty Knife.

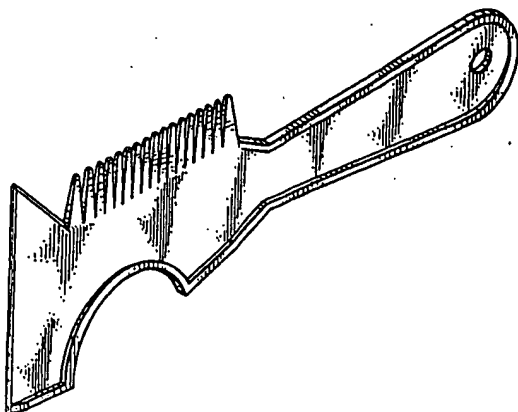
Primary Examiner—Friedrich G. Drenth  
Assistant Examiner—Richard Shelton  
Attorney, Agent, or Firm—Marshall A. Lerner; Marvin H. Kiehlberg; Michael J. Ratz

(57) CLAIM  
The ornamental design for a tool, as shown.

## DESCRIPTION

FIG. 1 is an isometric view of the tool showing my new design.  
FIG. 2 is a front view thereof;  
FIG. 3 is a right-side view thereof;  
FIG. 4 is a rear view thereof;  
FIG. 5 is a top view thereof;  
FIG. 6 is a bottom view thereof, and  
FIG. 7 is a left-side view thereof.

1 Claim, 1 Drawing Sheet



# United States Patent (19)

(11) Patent Number: Des. 312,379  
(45) Date of Patent: Nov. 27, 1990

(54) ERGONOMIC PUTTY KNIFE  
(76) Inventor: Salvador S. M. Coash, Xochitlaco #718, Mexico D.F., Mexico, 03630

(21) Term: 14 Years  
(22) Filed: Oct. 21, 1986  
(31) U.S. Cl. D6/98; D8/107  
(32) Field of Search: D4/107; D22/111; D7/130, 131; 30/714, 715, 317, 162, 329, 83, 337

(56) References Cited  
U.S. PATENT DOCUMENTS  
D. 143,046 11/1949 Stern D7/130  
D. 182,837 1/1938 Leiman D7/130  
D. 234,839 4/1977 Cullin et al. D7/130  
D. 248,083 1/1983 Brennan et al. D6/98  
1,793,482 6/1977 Machin D6/98

## OTHER PUBLICATIONS

Techni-Tool, Inc. Cat #16, ©1970, p. 81, Spania #8.

Buffalo/Novocor/Lacheta, Cat. #109, publ. 1984, p. 51.  
Henry Schia, Inc., Fall '86-Winter '87 Cat., p. 184.  
Spencer Mead Dental, Inc., Winter '85-'86 Cat., p. 181.

Primary Examiner—Bruce W. Dunkin  
Assistant Examiner—Charles E. Heflin  
Attorney, Agent, or Firm—Silverman, Case & Singer, Ltd.

(57) CLAIM  
The ornamental design for ergonomic putty knife, substantially as shown and described.

## DESCRIPTION

FIG. 1 is a rear, left side perspective view of the ergonomic putty knife of the invention;  
FIG. 2 is a front, right side perspective view thereof;  
FIG. 3 is a rear elevational view thereof;  
FIG. 4 is a front elevational view thereof;  
FIG. 5 is a right side elevational view thereof;  
FIG. 6 is a left side elevational view thereof;  
FIG. 7 is a top plan view thereof;  
FIG. 8 is a bottom plan view thereof; and  
FIG. 9 is a top perspective view thereof.



# United States Patent (19)

(11) Patent Number: 5,956,799  
(45) Date of Patent: Sep. 28, 1999

(54) PUTTY KNIFE AND SCRAPER HANDLE  
(76) Inventor: Mark Thomas Panaccione, 17932 SW. Bradley Ln., Tigard, Ore. 97224;  
Donald Paul Cummings, 19 Old Village Rd., Sturbridge, Mass. 01566

(21) Appl. No. 08/924,758  
(22) Filed: Sep. 10, 1997  
(31) Int. Cl. A47L 13/02  
(32) U.S. Cl. 15/234.01; 15/143.1; 16/111 R; 8/1/77.1  
(33) Field of Search: 15/143.1, 233.4, 15/234.01; 16/110 R, 111 R; 20/169, 340; 8/1/77.1, 492, 500

(56) References Cited  
U.S. PATENT DOCUMENTS  
264,327 9/1882 Haley 8/1/77.1  
1,512,920 10/1924 Osble 8/1/77.1  
1,694,559 12/1928 Osble 8/1/77.1  
4,334,514 4/1983 Matellio et al. 20/169  
4,639,029 1/1987 Kalamit  
4,731,021 1/1988 Kalamit  
4,739,336 4/1988 Barden et al.  
4,969,231 11/1990 Mader et al.  
5,208,984 5/1993 Nagai 15/234.01

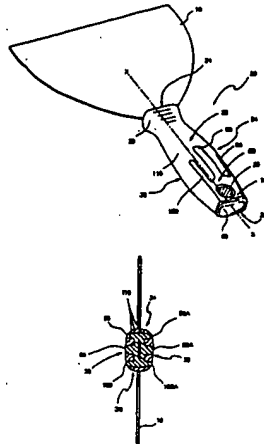
Advertisement from Feb. 1997 Industrial Products Bulletin, p. 61.

Primary Examiner—Teresa R. Till  
Attorney, Agent, or Firm—Donald R. Kilgous

## ABSTRACT

An ergonomic putty knife and scraper handle manufactured from at least two different harden injection molded polyurethanes having a plurality of bores longitudinally embedded in a softer overlay best exposed on both top and bottom surfaces in strategic locations. The longitudinal ribs providing non-binding contact with fabric surfaces to ease the insertion and removal of the handle into and from a user's pocket for temporary storage of the tool when not in use. When employing the tool for its intended purpose, however, the user enjoys the comfort, efficiency and safety of an ergonomic handle offering a "soft touch" to thumb and fingers in those locations requiring superior gripability.

20 Claims, 14 Drawing Sheets



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